

Ramon Vilanova

List of Publications by Year in descending order

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300
papers

3,223
citations

159358

30
h-index

243296

44
g-index

320
all docs

320
docs citations

320
times ranked

1627
citing authors

#	ARTICLE	IF	CITATIONS
1	IMC based Robust PID design: Tuning guidelines and automatic tuning. Journal of Process Control, 2008, 18, 61-70.	1.7	124
2	Applying variable dissolved oxygen set point in a two level hierarchical control structure to a wastewater treatment process. Journal of Process Control, 2015, 28, 40-55.	1.7	109
3	PID control in terms of robustness/performance and servo/regulator trade-offs: A unifying approach to balanced autotuning. Journal of Process Control, 2013, 23, 527-542.	1.7	82
4	Improving the performance of a WWTP control system by model-based setpoint optimisation. Environmental Modelling and Software, 2011, 26, 492-497.	1.9	74
5	ANN-Based Soft Sensor to Predict Effluent Violations in Wastewater Treatment Plants. Sensors, 2019, 19, 1280.	2.1	67
6	Model-reference robust tuning of 2DoF PI controllers for first- and second-order plus dead-time controlled processes. Journal of Process Control, 2012, 22, 359-374.	1.7	63
7	Application of multivariate virtual reference feedback tuning for wastewater treatment plant control. Control Engineering Practice, 2012, 20, 499-510.	3.2	60
8	Advanced decision control system for effluent violations removal in wastewater treatment plants. Control Engineering Practice, 2016, 49, 60-75.	3.2	60
9	Robust tuning of Two-Degree-of-Freedom (2-DoF) PI/PID based cascade control systems. Journal of Process Control, 2009, 19, 1658-1670.	1.7	59
10	Control strategies for nitrous oxide emissions reduction on wastewater treatment plants operation. Water Research, 2017, 125, 466-477.	5.3	55
11	Robust tuning of 2DoF five-parameter PID controllers for inverse response controlled processes. Journal of Process Control, 2013, 23, 453-462.	1.7	53
12	Fuzzy Control and Model Predictive Control Configurations for Effluent Violations Removal in Wastewater Treatment Plants. Industrial & Engineering Chemistry Research, 2015, 54, 2763-2775.	1.8	53
13	Tuning rules for robust FOPID controllers based on multi-objective optimization with FOPDT models. ISA Transactions, 2017, 66, 344-361.	3.1	53
14	Optimal Control of Wastewater Treatment Plants Using Economic-Oriented Model Predictive Dynamic Strategies. Applied Sciences (Switzerland), 2017, 7, 813.	1.3	52
15	Life Cycle Assessment as an environmental evaluation tool for control strategies in wastewater treatment plants. Journal of Cleaner Production, 2015, 107, 653-661.	4.6	50
16	PID autotuning for weighted servo/regulation control operation. Journal of Process Control, 2010, 20, 472-480.	1.7	47
17	Robust Tuning and Performance Analysis of 2DoF PI Controllers for Integrating Controlled Processes. Industrial & Engineering Chemistry Research, 2012, 51, 13182-13194.	1.8	46
18	On the evaluation of the global impact of control strategies applied to wastewater treatment plants. Journal of Cleaner Production, 2017, 149, 396-405.	4.6	46

#	ARTICLE	IF	CITATIONS
19	Inventory control for the supply chain: An adaptive control approach based on the identification of the lead-time. <i>Omega</i> , 2012, 40, 314-327.	3.6	44
20	Proportional-Integral-Derivative Tuning for Servo/Regulation Control Operation for Unstable and Integrating Processes. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 3327-3334.	1.8	41
21	Enhanced sensitivity in the analysis of trace organochlorine compounds by negative-ion mass spectrometry with ammonia as reagent gas. <i>Journal of Chromatography A</i> , 1998, 823, 73-79.	1.8	40
22	control of fractional linear systems. <i>Automatica</i> , 2013, 49, 2276-2280.	3.0	40
23	H ∞ optimization-based fractional-order PID controllers design. <i>International Journal of Robust and Nonlinear Control</i> , 2014, 24, 3009-3026.	2.1	40
24	Fuzzy logic for plant-wide control of biological wastewater treatment process including greenhouse gas emissions. <i>ISA Transactions</i> , 2018, 77, 146-166.	3.1	40
25	IMC based feedforward controller framework for disturbance attenuation on uncertain systems. <i>ISA Transactions</i> , 2009, 48, 439-448.	3.1	39
26	Inventory control of supply chains: Mitigating the bullwhip effect by centralized and decentralized Internal Model Control approaches. <i>European Journal of Operational Research</i> , 2013, 224, 261-272.	3.5	38
27	On the model matching approach to PID design: Analytical perspective for robust Servo/Regulator tradeoff tuning. <i>Journal of Process Control</i> , 2010, 20, 596-608.	1.7	36
28	IMC-like analytical H ∞ design with S/SP mixed sensitivity consideration: Utility in PID tuning guidance. <i>Journal of Process Control</i> , 2011, 21, 976-985.	1.7	32
29	Model-Reference Robust Tuning of PID Controllers. <i>Advances in Industrial Control</i> , 2016, , .	0.4	32
30	Wastewater Treatment Plant Operation: Simple Control Schemes with a Holistic Perspective. <i>Sustainability</i> , 2020, 12, 768.	1.6	32
31	Simple Servo/Regulation Proportional-Integral-Derivative (PID) Tuning Rules for Arbitrary M _s -Based Robustness Achievement. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 2666-2674.	1.8	29
32	Simple robust autotuning rules for 2-DoF PI controllers. <i>ISA Transactions</i> , 2012, 51, 30-41.	3.1	28
33	LSTM-Based Wastewater Treatment Plants Operation Strategies for Effluent Quality Improvement. <i>IEEE Access</i> , 2019, 7, 159773-159786.	2.6	27
34	Non-Linear Sliding Mode Controller for Photovoltaic Panels with Maximum Power Point Tracking. <i>Processes</i> , 2020, 8, 108.	1.3	27
35	N-Removal on Wastewater Treatment Plants: A Process Control Approach. <i>Journal of Water Resource and Protection</i> , 2011, 03, 1-11.	0.3	27
36	A refinement procedure for PID controller tuning. <i>Computers and Chemical Engineering</i> , 2002, 26, 903-908.	2.0	25

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37	Optimal Nash tuning rules for robust PID controllers. Journal of the Franklin Institute, 2017, 354, 3945-3970.	1.9	25
38	Robust PI/PID controllers for load disturbance based on direct synthesis. ISA Transactions, 2018, 81, 177-196.	3.1	25
39	Denosing Autoencoders and LSTM-Based Artificial Neural Networks Data Processing for Its Application to Internal Model Control in Industrial Environmentsâ€™The Wastewater Treatment Plant Control Case. Sensors, 2020, 20, 3743.	2.1	25
40	Realisation of two-degrees-of-freedom compensators. IET Control Theory and Applications, 1997, 144, 589-595.	1.7	24
41	Simple PID tuning rules with guaranteed Ms robustness achievement. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12042-12047.	0.4	23
42	Educational Data Mining for Tutoring Support in Higher Education: A Web-Based Tool Case Study in Engineering Degrees. IEEE Access, 2020, 8, 212818-212836.	2.6	22
43	Two-Degree-of-Freedom PI/PID tuning approach for smooth control on cascade control systems. , 2008, , .		20
44	Maximum Sensitivity Based Robust Tuning for Two-Degree-of-Freedom Proportionalâ€™Integral Controllers. Industrial & Engineering Chemistry Research, 2010, 49, 5415-5423.	1.8	20
45	Analytical robust tuning of PI controllers for first-order-plus-dead-time processes. , 2008, , .		18
46	Dissolved Oxygen Control in Biological Wastewater Treatments with Non-Ideal Sensors and Actuators. Industrial & Engineering Chemistry Research, 2019, 58, 20639-20654.	1.8	18
47	PI and Fuzzy Control for P-removal in Wastewater Treatment Plant. International Journal of Computers, Communications and Control, 2015, 10, 176.	1.2	18
48	Optimal Robust Tuning for 1DoF PI/PID Control Unifying FOPDT/SOPDT Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 572-577.	0.4	17
49	Improved PID controller tuning rules for performance degradation/robustness increase trade-off. Electrical Engineering, 2016, 98, 233-243.	1.2	17
50	Applying Control Actions for Water Line and Sludge Line To Increase Wastewater Treatment Plant Performance. Industrial & Engineering Chemistry Research, 2018, 57, 5630-5638.	1.8	17
51	Multi-loop PI-based control strategies for the Activated Sludge Process. , 2009, , .		16
52	Performance/robustness tradeoff analysis of PI/PID servo and regulatory control systems. , 2010, , .		16
53	Simple Robust Tuning of 2DoF PID Controllers From A Performance/Robustness Trade-off Analysis. Asian Journal of Control, 2013, 15, 1700-1713.	1.9	16
54	PID tuning for cascade control system design. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	15

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55	Considerations on Set-Point Weight choice for 2-DoF PID Controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 721-726.	0.4	15
56	PI Dissolved Oxygen control in wastewater treatment plants for plantwide nitrogen removal efficiency. IFAC-PapersOnLine, 2018, 51, 450-455.	0.5	15
57	Design of Optimal PID Control with a Sensitivity Function for Resonance Phenomenon-involved Second-order Plus Dead-time System. Journal of the Franklin Institute, 2020, 357, 4187-4211.	1.9	15
58	Servo/regulation tradeoff tuning of PID controllers with a robustness consideration. , 2007, , .		14
59	Simple Analytical min-max Model Matching Approach to Robust Proportional-Integrative-Derivative Tuning with Smooth Set-Point Response. Industrial & Engineering Chemistry Research, 2010, 49, 690-700.	1.8	14
60	Generalized Internal Model Control for Balancing Input/Output Disturbance Response. Industrial & Engineering Chemistry Research, 2011, 50, 11170-11180.	1.8	14
61	Procedure for Cascade Control Systems Design: Choice of Suitable PID Tunings. International Journal of Computers, Communications and Control, 2014, 3, 235.	1.2	14
62	Fragility analysis of PID controllers. , 2009, , .		13
63	Analysis of the claimed robustness for PI/PID robust tuning rules. , 2010, , .		13
64	Performance and Robustness Considerations for Tuning of Proportional Integral/Proportional Integral Derivative Controllers with Two Input Filters. Industrial & Engineering Chemistry Research, 2013, 52, 18287-18302.	1.8	13
65	PIT Attuning settings for balanced Servo/Regulation operation. , 2007, , .		12
66	Removing violations of the effluent pollution in a wastewater treatment process. Chemical Engineering Journal, 2015, 279, 207-219.	6.6	12
67	Joint Environmental and Economical Analysis of Wastewater Treatment Plants Control Strategies: A Benchmark Scenario Analysis. Sustainability, 2016, 8, 360.	1.6	12
68	Extremum-Seeking Control Approach Based on the Influent Variability for Anaerobic Digestion Optimization. IFAC-PapersOnLine, 2017, 50, 12623-12628.	0.5	12
69	Optimal Robust PID Control for First- and Second-Order Plus Dead-Time Processes. Applied Sciences (Switzerland), 2019, 9, 1934.	1.3	12
70	Eco-Efficiency Assessment of Control Actions in Wastewater Treatment Plants. Water (Switzerland), 2021, 13, 612.	1.2	12
71	Transfer Learning in Wastewater Treatment Plant Control Design: From Conventional to Long Short-Term Memory-Based Controllers. Sensors, 2021, 21, 6315.	2.1	12
72	Design of Feedback Control Strategies in a Plant-Wide Wastewater Treatment Plant for Simultaneous Evaluation of Economics, Energy Usage, and Removal of Nutrients. Energies, 2021, 14, 6386.	1.6	12

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73	A look into robustness/performance and servo/regulation issues in PI tuning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 181-186.	0.4	11
74	Multiobjective tuning of PI controller using the NNC Method: Simplified problem definition and guidelines for decision making. , 2013, , .		11
75	Improvement of the Control System Performance based on Fractional-Order PID Controllers and Models with Robustness Considerations. IFAC-PapersOnLine, 2018, 51, 551-556.	0.5	11
76	Discrete-Time First-Order Plus Dead-Time Model-Reference Trade-off PID Control Design. Applied Sciences (Switzerland), 2019, 9, 3220.	1.3	11
77	New approach for regulation of the internal recirculation flow rate by fuzzy logic in biological wastewater treatments. ISA Transactions, 2022, 120, 167-189.	3.1	11
78	PID controller tuning rules for robust step response of first-order-plus-dead-time models. , 2006, , .		10
79	Optimal reference processing in two-degrees-of-freedom control. IET Control Theory and Applications, 2007, 1, 1322-1328.	1.2	10
80	A single-parameter robust tuning approach for Two-Degree-of-Freedom PID controllers. , 2009, , .		10
81	Multi-Model Smith Predictor Based Control of Multivariable Systems with Uncertain Bounded External Delays. IEEE Latin America Transactions, 2009, 7, 42-53.	1.2	10
82	Conversion formulae and performance capabilities of two-degree-of-freedom PID control algorithms. , 2012, , .		10
83	A Complete Solution for Developing Remote Labs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 96-101.	0.4	10
84	Model predictive control and fuzzy control in a hierarchical structure for wastewater treatment plants. , 2014, , .		9
85	Intelligent Control of a Distributed Energy Generation System Based on Renewable Sources. Sustainability, 2016, 8, 748.	1.6	9
86	Global Evaluation of Wastewater Treatment Plants Control Strategies Including CO 2 Emissions. IFAC-PapersOnLine, 2017, 50, 12956-12961.	0.5	9
87	Adaptive PID control system with assigned robust stability. IEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 1169-1181.	0.8	9
88	PI/PID Control Design Based on a Fractional-Order Model for the Process. IFAC-PapersOnLine, 2019, 52, 976-981.	0.5	9
89	Chattering Free Adaptive Sliding Mode Controller for Photovoltaic Panels with Maximum Power Point Tracking. Energies, 2020, 13, 5678.	1.6	9
90	Human Intervention and Interface Design in Automation Systems. International Journal of Computers, Communications and Control, 2014, 6, 166.	1.2	9

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91	IMC-like analytical design with S/SP mixed sensitivity consideration: Utility in PID tuning guidance. Journal of Process Control, 2011, 21, 554-563.	1.7	8
92	Data-driven robust PID tuning toolbox. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 134-139.	0.4	8
93	A switched control strategy for inventory control of the supply chain. Journal of Process Control, 2013, 23, 868-880.	1.7	8
94	Artificial Neural Network for nitrogen and ammonia effluent limit violations risk detection in Wastewater Treatment Plants. , 2015, , .		8
95	Fractional order model identification: Computational optimization. , 2015, , .		8
96	Robust proportionalâ€“integralâ€“derivative design for processes with interval parametric uncertainty. IET Control Theory and Applications, 2017, 11, 1016-1023.	1.2	8
97	Closed-loop Data-driven Trade-off PID Control Design. IFAC-PapersOnLine, 2018, 51, 244-249.	0.5	8
98	Robustness Improvement Using the Filtered Smith Predictor Based Fractional Integral-Fractional Derivative Controllers: Application to a Pressure Plant. , 2018, , .		8
99	Model reference based robust tuning of five-parameter 2DoF PID controllers for first-order plus dead-time models. , 2013, , .		8
100	Revisiting IMC based design of PI/PID controllers for FOPTD Models. , 2006, , .		7
101	Reference processing in Two-Degree-Of-Freedom Control: Separation, Independence or Optimality. , 2006, , .		7
102	Multivariable PI control for a boiler plant benchmark using the Virtual Reference Feedback Tuning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 376-381.	0.4	7
103	Fragility Evaluation of PI and PID Controllers Tuning Rules. Advances in Industrial Control, 2012, , 349-380.	0.4	7
104	Control strategies for ammonia violations removal in BSM1 for dry, rain and storm weather conditions. , 2015, , .		7
105	Comparison of multi-objective optimization methods for PI controllers tuning. , 2015, , .		7
106	Control and Decision Strategies in Wastewater Treatment Plants for Operation Improvement. Intelligent Systems, Control and Automation: Science and Engineering, 2017, , .	0.3	7
107	Decentralized Model Predictive Control for N and P removal in wastewater treatment plants. , 2018, , .		7
108	Industrial PID Controller Tuning. Advances in Industrial Control, 2021, , .	0.4	7

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109	A New Architecture for Robust Model Reference Control. , 0, , .		6
110	Feedforward control for uncertain systems. internal model control approach. , 2007, , .		6
111	Considerations on PID controller operation: Application to a continuous stirred tank reactor. , 2008, , .		6
112	A 2DOF H _∞ robust tracking design for a special type of observed state feedback controllers. , 2008, , .		6
113	Control strategies and wastewater treatment plants performance: Effect of controllers parameters variation. , 2011, , .		6
114	H _∞ model matching PID design for fractional FOPDT systems. , 2012, , .		6
115	Set-point weight selection for robustly tuned PI/PID regulators for over damped processes. , 2012, , .		6
116	Reliability based multiobjective optimization design procedure for PI controller tuning.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10263-10268.	0.4	6
117	Application of fuzzy control on wastewater treatment plant for P-removal. , 2015, , .		6
118	Fuzzy control applied on a benchmark simulation model for sewer networks. , 2016, , .		6
119	Model-Based Optimization of an Anaerobic Digestion Process. , 2018, , .		6
120	Control Strategies of a Wastewater Treatment Plant. IFAC-PapersOnLine, 2019, 52, 257-262.	0.5	6
121	Robustness in PID Control. Advances in Industrial Control, 2012, , 113-145.	0.4	6
122	Digital Control of a Waste Water Treatment Plant. International Journal of Computers, Communications and Control, 2014, 6, 367.	1.2	6
123	Data-driven Control of the Activated Sludge Process: IMC plus Feedforward Approach. International Journal of Computers, Communications and Control, 2016, 11, 522.	1.2	6
124	Quantifying the Benefit of a Dynamic Performance Assessment of WWTP. Processes, 2020, 8, 206.	1.3	6
125	Multiple-Delay Smith Predictor Based Control of LTI Systems with Bounded Uncertain Delay. , 2007, , .		5
126	Reference controller design in 2-DOF control. Electrical Engineering, 2008, 90, 275-281.	1.2	5

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127	Control configuration for inverse response processes. , 2008, , .		5
128	Analytical H _∞ design for a Smith-type inverse-response compensator. , 2009, , .		5
129	General Smith Predictors from an Observer-Controller perspective. , 2009, , .		5
130	On estimation of unknown state variables in wastewater systems. , 2009, , .		5
131	Evaluation of Methodology PBL Done by Students. , 2010, , .		5
132	Internal Model Controller tuning using the Virtual Reference Approach with Robust Stability. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10237-10242.	0.4	5
133	Robust-performance tuning of 2DoF PI/PID controllers for first- and Second-Order-Plus-Dead-Time models. , 2011, , .		5
134	Model reference robust tuning of 2DoF PI controllers for integrating controlled processes. , 2012, , .		5
135	Nash-based criteria for selection of Pareto Optimal PI controller. , 2013, , .		5
136	Nash tuning for optimal balance of the servo/regulation operation in robust PID control. , 2015, , .		5
137	Multi-objective optimal tuning of two degrees of freedom PID controllers using the ENNC method. , 2016, , .		5
138	Robust discrete-time linear control of heart rate during treadmill exercise. , 2016, , .		5
139	ANN-based Internal Model Control strategy applied in the WWTP industry. , 2019, , .		5
140	The Tuning of a Model-Free Controller for an Anaerobic Digestion Process using ADM1 as Virtual Plant. IFAC-PapersOnLine, 2019, 52, 99-104.	0.5	5
141	Model-Reference Robust Tuning Design Methodology. Advances in Industrial Control, 2016, , 29-34.	0.4	5
142	Robust 2-DoF PID control for Congestion control of TCP/IP Networks. International Journal of Computers, Communications and Control, 2014, 5, 968.	1.2	5
143	Optimal Control Strategy of a Sewer Network. Water (Switzerland), 2022, 14, 1062.	1.2	5
144	Model reference control in two degree of freedom control systems: Adaptive min-max approach. IET Control Theory and Applications, 1999, 146, 273-281.	1.7	4

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145	GEMMA GUIDE APPROACH FOR THE INTRODUCTION OF THE HUMAN OPERATOR INTO THE AUTOMATION CYCLE. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 285-290.	0.4	4
146	Feedforward based two degrees of freedom formulation of the Virtual Reference Feedback Tuning approach. , 2009, , .		4
147	Towards integral human-machine system conception: From automation design to usability concerns. , 2009, , .		4
148	NORT: a non-oscillatory robust tuning approach for 2-DoF PI controllers. , 2009, , .		4
149	Observer-based Controller Design for a Class of Stable/Unstable Inverse Response Processes. Industrial & Engineering Chemistry Research, 2009, 48, 10986-10993.	1.8	4
150	Digital inverse model control using Generalised holds with extensions to the adaptive case. International Journal of Control, Automation and Systems, 2010, 8, 707-719.	1.6	4
151	OPTIMALITY CHARACTERISTICS OF PI/PID CONTROLLERS: A COMBINED MIN-MAX/ISE INTERPRETATION. Chemical Engineering Communications, 2010, 197, 1240-1260.	1.5	4
152	Identification and adaptive control of delayed unstable systems. , 2010, , .		4
153	Control of a pH neutralization plant using the VRFT framework. , 2010, , .		4
154	Three degrees of freedom Virtual Reference Feedback Tuning design and its application to wastewater treatment plant control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7144-7149.	0.4	4
155	Robust tuning of 2DoF PID controllers with filter for unstable first-order plus dead-time processes. , 2013, , .		4
156	Comparison of control strategies on combined biological phosphorus and nitrogen removal wastewater treatment process. , 2013, , .		4
157	An Optimization Software Tool for Performance/Robustness Analysis and Tuning of PID Controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 126-131.	0.4	4
158	Economic optimization of Wastewater Treatment Plants using Non Linear Model Predictive Control. , 2015, , .		4
159	Model reference PI controller tuning for Second Order Inverse Response and Dead Time Processes. , 2016, , .		4
160	Multi-objective optimization based tuning tool for industrial 2doF PID controllers * *This work was supported under grant 322-B4-218 by Vicerrectoría de Investigación de la Universidad de Costa Rica and partially supported by the Spanish Ministry of Economy and Competitiveness program under grants DPI2013-47825-C3-1-R, DPI2016-77271-R. IFAC-PapersOnLine, 2017, 50, 7511-7516.	0.5	4
161	Optimization of the wastewater treatment processes based on the relaxation method. , 2017, , .		4
162	A hierarchical Plant wide operation in wastewater treatment plants: overall efficiency index control and event-based reference management. , 2018, , .		4

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163	Permeate Flux Control in SMBR System by Using Neural Network Internal Model Control. Processes, 2020, 8, 1672.	1.3	4
164	Performance/Robustness Trade-off Design Framework for 2DoF PI Controllers. Studies in Informatics and Control, 2012, 21, .	0.6	4
165	Anaerobic Digestion Process Control Using a Data-Driven Internal Model Control Method. Energies, 2021, 14, 6746.	1.6	4
166	Transfer Learning Approach for the Design of Basic Control Loops in Wastewater Treatment Plants. , 2021, , .		4
167	Data-Driven Internal Model Control of an Anaerobic Digestion Process. , 2021, , .		4
168	Quality Assessment of Models for Iterative/Adaptive Control. , 2006, , .		3
169	Tracking Performance and uncertainty: Performance Degradation Equivalence between 1-DOF and 2-DOF control configurations. , 2007, , .		3
170	Introducci3n del Operario Humano en el Ciclo de Automatizaci3n de Procesos Mediante la Gu3a GEMMA. Informacion Tecnologica (discontinued), 2007, 18, .	0.1	3
171	Smith Predictor based intelligent control of multiple-input-multiple-output systems with unknown delays. , 2008, , .		3
172	Multivariable PID control tuning: A controller validation approach. , 2008, , .		3
173	Closed-loop interaction and performance considerations for decentralized control of two-by-two multivariable systems. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	3
174	Stability analysis for the intermediate servo/regulation PID tuning. , 2009, , .		3
175	Frequency-dependent approach to model validation for iterative identification and control schemes. IET Control Theory and Applications, 2009, 3, 98-109.	1.2	3
176	Multimodel-based techniques for the identification of the delay in MIMO systems. , 2010, , .		3
177	SCADA design in automation systems. , 2010, , .		3
178	Fragility-Rings - A Graphic Tool for PI/PID Controllers Robustness-Fragility Analysis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 187-192.	0.4	3
179	2-DoF Decoupling controller formulation for set-point following on Decentraliced PI/PID MIMO Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 235-240.	0.4	3
180	Performance analysis of model reference robust tuned 2DoF PI controllers for over damped processes. , 2012, , .		3

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181	Interactive Software Tool for Robust Tuning of One- and Two-Degree-of-Freedom PI and PID Controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 13-18.	0.4	3
182	Process based control architecture for avoiding effluent pollutants quality limits violations in wastewater treatment plants. , 2015, , .		3
183	Identification and Control of Chemical Processes Using the Anisochronic Modeling Paradigm. IFAC-PapersOnLine, 2015, 48, 361-366.	0.5	3
184	Development of a Mobile Application for Robust Tuning of One- and Two-Degree-of-Freedom PI and PID Controllers. IFAC-PapersOnLine, 2015, 48, 76-81.	0.5	3
185	Servo/regulation intermediate tuning for fractional order PID controllers. , 2015, , .		3
186	Control strategies for the sludge line in wastewater treatment plants. , 2016, , .		3
187	An internal model control approach to event-based control. , 2017, , .		3
188	I-PD controller as an structural alternative to servo/regulation tradeoff tuning. IFAC-PapersOnLine, 2018, 51, 787-792.	0.5	3
189	Event-based control for dissolved oxygen and nitrogen in wastewater treatment plants. , 2018, , .		3
190	Data Preprocessing for ANN-based Industrial Time-Series Forecasting with Imbalanced Data. , 2019, , .		3
191	Noisy Signals in Wastewater Treatment Plants data-driven control: Spectral Analysis approach for the design of ANN-IMC controllers. , 2020, , .		3
192	Control of high-order processes: repeated-pole plus dead-time models' identification. International Journal of Control, 0, , 1-11.	1.2	3
193	A preventive maintenance strategy for an actuator using Markov models. IFAC-PapersOnLine, 2020, 53, 784-789.	0.5	3
194	Observer-controller configuration approach to controller robustification. , 0, , .		2
195	IMPLEMENTATION OF CONSTRAINED PREDICTIVE OUTER-LOOP CONTROLLERS: APPLICATION TO A BOILER CONTROL SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 145-150.	0.4	2
196	ISA-PID Controller Tuning: A combined min-max / ISE approach. , 2006, , .		2
197	TUNING RELATIONS FOR ROBUST PID DESIGN BASED ON MIN MAX OPTIMIZATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 203-208.	0.4	2
198	ISA-PID controller tuning: A combined min-max / ISE approach. , 2006, , .		2

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199	Stability margins characterization of a combined servo/regulation tuning for PID controllers. , 2007, , .		2
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