Ramon Vilanova

List of Publications by Year in Descending Order

250 papers	2,102 citations	25 h-index	35 g-index
320 ext. papers	2,735 ext. citations	2.4 avg, IF	5.51 L-index

#	Paper	IF	Citations
250	Robust Tuning for 2DoF Fractional-Order PI Controllers Based on Model Reference Approach. *Lecture Notes in Networks and Systems*, **2022**, 687-696	0.5	1
249	Optimal Control Strategy of a Sewer Network. *Water (Switzerland)*, **2022**, 14, 1062	3	0
248	Design of a Closed-Control Loop Based on Simple Tuning Rules for Fractional PID Controllers for Integrating Systems with Robustness Considerations. *Lecture Notes in Electrical Engineering*, **2022**, 511-520	0.2	
247	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	3.1	1
246	Anaerobic Digestion Process Control Using a Data-Driven Internal Model Control Method. *Energies*, **2021**, 14, 6746	3.1	2
245	New approach for regulation of the internal recirculation flow rate by fuzzy logic in biological wastewater treatments. *ISA Transactions*, **2021**, 120, 167-167	5.5	2
244	Multiobjective Optimization. *Advances in Industrial Control*, **2021**, 41-67	0.3	
243	Industrial Application Examples. *Advances in Industrial Control*, **2021**, 115-148	0.3	
242	PID Controller Considerations. *Advances in Industrial Control*, **2021**, 21-30	0.3	
241	Application of the Multiobjective Approach. *Advances in Industrial Control*, **2021**, 69-90	0.3	
240	Industrial PID Control. *Advances in Industrial Control*, **2021**, 5-19	0.3	
239	PID Tuning as a Multiobjective Optimization Problem. *Advances in Industrial Control*, **2021**, 91-113	0.3	
238	Eco-Efficiency Assessment of Control Actions in Wastewater Treatment Plants. *Water (Switzerland)*, **2021**, 13, 612	3	4
237	Industrial Control under Non-Ideal Measurements: Data-Based Signal Processing as an Alternative to Controller Retuning. *Sensors*, **2021**, 21,	3.8	1
236	Sintonía de controladores PID: un enfoque analítico basado en el moldeo de la función de sensibilidad. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2021**, 18, 313	1.5	1
235	PID Controller Design. *Advances in Industrial Control*, **2021**, 31-40	0.3	1
234	Global Internal Recirculation Alternative Operation to Reduce Nitrogen and Ammonia Limit Violations and Pumping Energy Costs in Wastewater Treatment Plants. *Processes*, **2020**, 8, 1606	2.9	

233	Permeate Flux Control in SMBR System by Using Neural Network Internal Model Control. *Processes*, **2020**, 8, 1672	2.9	1
232	Chattering Free Adaptive Sliding Mode Controller for Photovoltaic Panels with Maximum Power Point Tracking. *Energies*, **2020**, 13, 5678	3.1	2
231	Denoising Autoencoders and LSTM-Based Artificial Neural Networks Data Processing for Its Application to Internal Model Control in Industrial Environments-The Wastewater Treatment Plant Control Case. *Sensors*, **2020**, 20,	3.8	6
230	Wastewater Treatment Plant Operation: Simple Control Schemes with a Holistic Perspective. *Sustainability*, **2020**, 12, 768	3.6	14
229	Non-Linear Sliding Mode Controller for Photovoltaic Panels with Maximum Power Point Tracking. *Processes*, **2020**, 8, 108	2.9	19
228	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	4	6
227	LSTM-based IMC approach applied in Wastewater Treatment Plants: performance and stability analysis. *IFAC-PapersOnLine*, **2020**, 53, 16569-16574	0.7	1
226	A preventive maintenance strategy for an actuator using Markov models. *IFAC-PapersOnLine*, **2020**, 53, 784-789	0.7	
225	Quantifying the Benefit of a Dynamic Performance Assessment of WWTP. *Processes*, **2020**, 8, 206	2.9	2
224	Fuzzy Gain Scheduling and Feed-Forward Control for Drinking Water Treatment Plants (DWTP) Chlorination Process. *IEEE Access*, **2020**, 8, 110018-110032	3.5	1
223	. *IEEE Access*, **2020**, 8, 212818-212836	3.5	9
222	Model Reference Based Tuning for Fractional-Order 2DoF PI Controllers with a Robustness Consideration. *IFAC-PapersOnLine*, **2019**, 52, 207-212	0.7	1
221	Control Strategies of a Wastewater Treatment Plant. *IFAC-PapersOnLine*, **2019**, 52, 257-262	0.7	1
220	Open-source low-cost Hardware-in-the-loop simulation platform for testing control strategies for artificial pancreas research. *IFAC-PapersOnLine*, **2019**, 52, 275-280	0.7	
219	Data-driven tool for monitoring of students performance. *IFAC-PapersOnLine*, **2019**, 52, 165-170	0.7	1
218	Optimal Robust PID Control for First- and Second-Order Plus Dead-Time Processes. *Applied Sciences (Switzerland)*, **2019**, 9, 1934	2.6	9
217	Artificial Neural Networks Application to Support Plant Operation in the Wastewater Industry. *IFIP Advances in Information and Communication Technology*, **2019**, 257-265	0.5	1
216	ANN-Based Soft Sensor to Predict Effluent Violations in Wastewater Treatment Plants. *Sensors*, **2019**, 19,	3.8	30

215	PI/PID Control Design Based on a Fractional-Order Model for the Process. *IFAC-PapersOnLine*, **2019**, 52, 976-981	0.7	6
214	Dissolved oxygen control in wastewater treatment plants considering sensor noise and actuator delays. **2019**,		1
213	ANN-based Internal Model Control strategy applied in the WWTP industry **2019**,		2
212	Discrete-Time First-Order Plus Dead-Time Model-Reference Trade-off PID Control Design. *Applied Sciences (Switzerland)*, **2019**, 9, 3220	2.6	5
211	LSTM-Based Wastewater Treatment Plants Operation Strategies for Effluent Quality Improvement. *IEEE Access*, **2019**, 7, 159773-159786	3.5	13
210	Dissolved Oxygen Control in Biological Wastewater Treatments with Non-Ideal Sensors and Actuators. *Industrial & Engineering Chemistry Research*, **2019**, 58, 20639-20654	3.9	7
209	Data Preprocessing for ANN-based Industrial Time-Series Forecasting with Imbalanced Data **2019**,		2
208	The Tuning of a Model-Free Controller for an Anaerobic Digestion Process using ADM1 as Virtual Plant. *IFAC-PapersOnLine*, **2019**, 52, 99-104	0.7	2
207	Adaptive PID control system with assigned robust stability. *IEEJ Transactions on Electrical and Electronic Engineering*, **2018**, 13, 1169-1181	1	7
206	Fuzzy logic for plant-wide control of biological wastewater treatment process including greenhouse gas emissions. *ISA Transactions*, **2018**, 77, 146-166	5.5	18
205	Applying Control Actions for Water Line and Sludge Line To Increase Wastewater Treatment Plant Performance. *Industrial & Engineering Chemistry Research*, **2018**, 57, 5630-5638	3.9	9
204	Robust PI/PID controllers for load disturbance based on direct synthesis. *ISA Transactions*, **2018**, 81, 177-196	5.5	19
203	Improvement of the Control System Performance based on Fractional-Order PID Controllers and Models with Robustness Considerations. *IFAC-PapersOnLine*, **2018**, 51, 551-556	0.7	7
202	Closed-loop Data-driven Trade-off PID Control Design. *IFAC-PapersOnLine*, **2018**, 51, 244-249	0.7	5
201	PI Dissolved Oxygen control in wastewater treatment plants for plantwide nitrogen removal efficiency. *IFAC-PapersOnLine*, **2018**, 51, 450-455	0.7	2
200	I-PD controller as an structural alternative to servo/regulation tradeoff tuning. *IFAC-PapersOnLine*, **2018**, 51, 787-792	0.7	0
199	Event-based control for dissolved oxygen and nitrogen in wastewater treatment plants **2018**,		1
198	Decentralized Model Predictive Control for N and P removal in wastewater treatment plants **2018**,		4

197	Model-Based Optimization of an Anaerobic Digestion Process **2018**,		2
196	Robustness Improvement Using the Filtered Smith Predictor Based Fractional Integral-Fractional Derivative Controllers: Application to a Pressure Plant **2018**,		3
195	Optimal H2 IMC based PID tuning rules for unstable time delay processes **2017**,		1
194	On the evaluation of the global impact of control strategies applied to wastewater treatment plants. *Journal of Cleaner Production*, **2017**, 149, 396-405	10.3	31
193	Robust proportional integral derivative design for processes with interval parametric uncertainty. *IET Control Theory and Applications*, **2017**, 11, 1016-1023	2.5	6
192	Optimal Nash tuning rules for robust PID controllers. *Journal of the Franklin Institute*, **2017**, 354, 3945-3970	4	15
191	Tuning rules for robust FOPID controllers based on multi-objective optimization with FOPDT models. *ISA Transactions*, **2017**, 66, 344-361	5.5	41
190	Control en Estaciones Depuradoras de Aguas Residuales: Estado actual y perspectivas. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2017**, 14, 329-345	1.5	18
189	The Proportional-Integral-Derivative (PID) Controller **2017**, 1-15		1
188	An internal model control approach to event-based control **2017**,		2
187	Control strategies for nitrous oxide emissions reduction on wastewater treatment plants operation. *Water Research*, **2017**, 125, 466-477	12.5	25
186	Control y Operaci de Estaciones Depuradoras de Aguas Residuales: Modelado y Simulaci. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2017**, 14, 217-233	1.5	17
185	Control and Decision Strategies in Wastewater Treatment Plants for Operation Improvement. *Intelligent Systems, Control and Automation: Science and Engineering*, **2017**,	0.6	4
184	Event-based internal model control approach for frequency deviation control in islanded micro grid **2017**,		1
183	Multi-objective optimization based tuning tool for industrial 2doF PID controllers * *This work was supported under grant 322-B4-218 by Vicerrector de Investigaci 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	0.7	2
182	Global Evaluation of Wastewater Treatment Plants Control Strategies Including CO2 Emissions. *IFAC-PapersOnLine*, **2017**, 50, 12956-12961	0.7	5
181	Extremum-Seeking Control Approach Based on the Influent Variability for Anaerobic Digestion Optimization. *IFAC-PapersOnLine*, **2017**, 50, 12623-12628	0.7	6
180	Optimization of the wastewater treatment processes based on the relaxation method **2017**,		1

179	Wastewater treatment plants operation optimization using economic dynamic real time optimization strategies. *Computer Aided Chemical Engineering*, **2017**, 40, 1567-1572	0.6	
178	Optimal Control of Wastewater Treatment Plants Using Economic-Oriented Model Predictive Dynamic Strategies. *Applied Sciences (Switzerland)*, **2017**, 7, 813	2.6	29
177	Control strategies for the sludge line in wastewater treatment plants **2016**,		2
176	Model reference PI controller tuning for Second Order Inverse Response and Dead Time Processes **2016**,		2
175	Robust discrete-time linear control of heart rate during treadmill exercise **2016**,		5
174	Advanced decision control system for effluent violations removal in wastewater treatment plants. *Control Engineering Practice*, **2016**, 49, 60-75	3.9	36
173	Improved PID controller tuning rules for performance degradation/robustness increase trade-off. *Electrical Engineering*, **2016**, 98, 233-243	1.5	12
172	Data-driven Control of the Activated Sludge Process: IMC plus Feedforward Approach. *International Journal of Computers, Communications and Control*, **2016**, 11, 522	3.6	4
171	Model-Reference Robust Tuning Design Methodology. *Advances in Industrial Control*, **2016**, 29-34	0.3	5
170	Control System Evaluation Metrics. *Advances in Industrial Control*, **2016**, 21-28	0.3	
169	MoReRT Control of Integrating Processes. *Advances in Industrial Control*, **2016**, 79-91	0.3	
168	MoReRT Control of Unstable Processes. *Advances in Industrial Control*, **2016**, 93-103	0.3	
167	Two-Degree-of-Freedom PID Controllers Structures. *Advances in Industrial Control*, **2016**, 7-19	0.3	5
166	MoReRT Practical Application. *Advances in Industrial Control*, **2016**, 129-168	0.3	
165	MoReRT Control of Overdamped Processes. *Advances in Industrial Control*, **2016**, 41-64	0.3	
164	Multivariable decoupling set-point approach applied to a wastewater treatment plant. *MATEC Web of Conferences*, **2016**, 76, 02043	0.3	0
163	Joint Environmental and Economical Analysis of Wastewater Treatment Plants Control Strategies: A Benchmark Scenario Analysis. *Sustainability*, **2016**, 8, 360	3.6	9
162	Intelligent Control of a Distributed Energy Generation System Based on Renewable Sources. *Sustainability*, **2016**, 8, 748	3.6	3

161	Fuzzy control applied on a benchmark simulation model for sewer networks **2016**,		1
160	Multi-objective optimal tuning of two degrees of freedom PID controllers using the ENNC method **2016**,		5
159	Model-Reference Robust Tuning of PID Controllers. *Advances in Industrial Control*, **2016**,	0.3	20
158	Fuzzy Control and Model Predictive Control Configurations for Effluent Violations Removal in Wastewater Treatment Plants. *Industrial & Engineering Chemistry Research*, **2015**, 54, 2763-2775	3.9	28
157	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	3.9	68
156	Fractional order model identification: Computational optimization **2015**,		3
155	Nash tuning for optimal balance of the servo/regulation operation in robust PID control **2015**,		5
154	Application of fuzzy control on wastewater treatment plant for P-removal **2015**,		4
153	Robustness/performance tradeoff for anisochronic plants with two degrees of freedom PID controllers **2015**,		1
152	Process based control architecture for avoiding effluent pollutants quality limits violations in wastewater treatment plants **2015**,		3
151	Control strategies for ammonia violations removal in BSM1 for dry, rain and storm weather conditions **2015**,		2
150	Artificial Neural Network for nitrogen and ammonia effluent limit violations risk detection in Wastewater Treatment Plants **2015**,		7
149	Identification and Control of Chemical Processes Using the Anisochronic Modeling Paradigm. *IFAC-PapersOnLine*, **2015**, 48, 361-366	0.7	3
148	Life Cycle Assessment as an environmental evaluation tool for control strategies in wastewater treatment plants. *Journal of Cleaner Production*, **2015**, 107, 653-661	10.3	37
147	Removing violations of the effluent pollution in a wastewater treatment process. *Chemical Engineering Journal*, **2015**, 279, 207-219	14.7	10
146	Economic optimization of Wastewater Treatment Plants using Non Linear Model Predictive Control **2015**,		3
145	Optimal PID control in discrete time using a sensitivity function **2015**,		1
144	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	0.7	2

143	Comparison of multi-objective optimization methods for PI controllers tuning **2015**,		5
142	Servo/regulation intermediate tuning for fractional order PID controllers **2015**,		3
141	Multistage procedure for PI controller design of the Boiler Benchmark problem **2015**,		2
140	PI and Fuzzy Control for P-removal in Wastewater Treatment Plant. *International Journal of Computers, Communications and Control*, **2015**, 10, 176	3.6	12
139	Reliability based multiobjective optimization design procedure for PI controller tuning.. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 10263-10268		5
138	A Usability Study Case of a Vision-Based Gesture Interface **2014**,		2
137	Optimality comparison of 2DoF PID implementations **2014**,		2
136	Model predictive control and fuzzy control in a hierarchical structure for wastewater treatment plants **2014**,		7
135	optimization-based fractional-order PID controllers design. *International Journal of Robust and Nonlinear Control*, **2014**, 24, 3009-3026	3.6	32
134	Procedure for Cascade Control Systems Design: Choice of Suitable PID Tunings. *International Journal of Computers, Communications and Control*, **2014**, 3, 235	3.6	9
133	Human Intervention and Interface Design in Automation Systems. *International Journal of Computers, Communications and Control*, **2014**, 6, 166	3.6	6
132	Digital Control of a Waste Water Treatment Plant. *International Journal of Computers, Communications and Control*, **2014**, 6, 367	3.6	4
131	control of fractional linear systems. *Automatica*, **2013**, 49, 2276-2280	5.7	32
130	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	3.9	60
129	Robust tuning of 2DoF five-parameter PID controllers for inverse response controlled processes. *Journal of Process Control*, **2013**, 23, 453-462	3.9	37
128	A switched control strategy for inventory control of the supply chain. *Journal of Process Control*, **2013**, 23, 868-880	3.9	6
127	Nash-based criteria for selection of Pareto Optimal PI controller **2013**,		5
126	Robust tuning of 2DoF PID controllers with filter for unstable first-order plus dead-time processes **2013**,		3

125	Multiobjective tuning of PI controller using the NNC Method: Simplified problem definition and guidelines for decision making **2013**,		10
124	Inventory control of supply chains: Mitigating the bullwhip effect by centralized and decentralized Internal Model Control approaches. *European Journal of Operational Research*, **2013**, 224, 261-272	5.6	26
123	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	3.9	10
122	Simple Robust Tuning of 2DoF PID Controllers From A Performance/Robustness Trade-off Analysis. *Asian Journal of Control*, **2013**, 15, 1700-1713	1.7	11
121	Comparison of control strategies on combined biological phosphorus and nitrogen removal wastewater treatment process **2013**,		3
120	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		1
119	A Complete Solution for Developing Remote Labs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 96-101		6
118	Education on automatic control for professionals through the LRA-ULE remote laboratory. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 90-95		1
117	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		2
116	Model reference based robust tuning of five-parameter 2DoF PID controllers for first-order plus dead-time models **2013**,		6
115	Servo and Regulation Tuning of PID Control Using Ms-based Robustness. *IEEJ Transactions on Electronics, Information and Systems*, **2013**, 133, 616-619	0.1	
114	Application of multivariate virtual reference feedback tuning for wastewater treatment plant control. *Control Engineering Practice*, **2012**, 20, 499-510	3.9	47
113	Simple robust autotuning rules for 2-DoF PI controllers. *ISA Transactions*, **2012**, 51, 30-41	5.5	24
112	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	3.9	52
111	Inventory control for the supply chain: An adaptive control approach based on the identification of the lead-time. *Omega*, **2012**, 40, 314-327	7.2	35
110	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		6
109	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		6
108	Set-point weight selection for robustly tuned PI/PID regulators for over damped processes **2012**,		4

107	Model reference robust tuning of 2DoF PI controllers for integrating controlled processes **2012**,		5
106	Conversion formulae and performance capabilities of two-degree-of-freedom PID control algorithms **2012**,		5
105	Lead-time identification for inventory control of the supply chain **2012**,		1
104	Simple Servo/Regulation Proportional□Integral□Derivative (PID) Tuning Rules for Arbitrary Ms-Based Robustness Achievement. *Industrial & Engineering Chemistry Research*, **2012**, 51, 2666-2674	3.9	25
103	Fragility Evaluation of PI and PID Controllers Tuning Rules. *Advances in Industrial Control*, **2012**, 349-380	0.3	4
102	Robust Tuning and Performance Analysis of 2DoF PI Controllers for Integrating Controlled Processes. *Industrial & Engineering Chemistry Research*, **2012**, 51, 13182-13194	3.9	37
101	Performance analysis of model reference robust tuned 2DoF PI controllers for over damped processes **2012**,		2
100	H□model matching PID design for fractional FOPDT systems **2012**,		4
99	Data-driven robust PID tuning toolbox. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 134-139		4
98	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		1
97	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		10
96	Performance Degradation Driven PID Controller Design. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 595-600		1
95	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		1
94	Performance/Robustness Trade-off Design Framework for 2DoF PI Controllers. *Studies in Informatics and Control*, **2012**, 21,	2.1	4
93	Robustness in PID Control. *Advances in Industrial Control*, **2012**, 113-145	0.3	5
92	Balanced Performance/Robustness PID Design. *Lecture Notes in Electrical Engineering*, **2012**, 91-108	0.2	1
91	Generalized Internal Model Control for Balancing Input/Output Disturbance Response. *Industrial & Engineering Chemistry Research*, **2011**, 50, 11170-11180	3.9	12
90	Tuning PI controllers based on H□Weighted Sensitivity **2011**,		1

89	Guest Editorial Special Section on Industrial Control. *IEEE Transactions on Industrial Informatics*, **2011**, 7, 161-162	11.9	1
88	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		3
87	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		1
86	Simple PID tuning rules with guaranteed Ms robustness achievement. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 12042-12047		11
85	**2011**,		1
84	Control strategies and wastewater treatment plants performance: Effect of controllers parameters variation **2011**,		2
83	Proportional-Integral-Derivative Tuning for Servo/Regulation Control Operation for Unstable and Integrating Processes. *Industrial & Engineering Chemistry Research*, **2011**, 50, 3327-3334	3.9	31
82	Control PID robusto: Una visi□ panor□mica. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2011**, 8, 141-158	1.5	23
81	Improving the performance of a WWTP control system by model-based setpoint optimisation. *Environmental Modelling and Software*, **2011**, 26, 492-497	5.2	59
80	IMC-like analytical design with S/SP mixed sensitivity consideration: Utility in PID tuning guidance. *Journal of Process Control*, **2011**, 21, 554-563	3.9	8
79	IMC-like analytical H□design with S/SP mixed sensitivity consideration: Utility in PID tuning guidance. *Journal of Process Control*, **2011**, 21, 976-985	3.9	24
78	Robust-performance tuning of 2DoF PI/PID controllers for first- and Second-Order-Plus-Dead-Time models **2011**,		3
77	N-Removal on Wastewater Treatment Plants: A Process Control Approach. *Journal of Water Resource and Protection*, **2011**, 03, 1-11	0.7	17
76	Stability of switched linear discrete-time descriptor systems with explicit calculation of a common quadratic Lyapunov sequence **2010**,		1
75	Evaluation of Methodology PBL Done by Students **2010**,		3
74	Multimodel-based techniques for the identification of the delay in MIMO systems **2010**,		3
73	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	3.9	11
72	Performance/robustness tradeoff analysis of PI/PID servo and regulatory control systems **2010**,		12

71	**2010**,		10
70	OPTIMALITY CHARACTERISTICS OF PI/PID CONTROLLERS: A COMBINED MIN-MAX/ISE INTERPRETATION. *Chemical Engineering Communications*, **2010**, 197, 1240-1260	2.2	4
69	Maximum Sensitivity Based Robust Tuning for Two-Degree-of-Freedom Proportional Integral Controllers. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5415-5423	3.9	18
68	Identification and adaptive control of delayed unstable systems **2010**,		4
67	SCADA design in automation systems **2010**,		2
66	Control of a pH neutralization plant using the VRFT framework **2010**,		3
65	The use of role playing in engineering curricula: A case study in human-automation systems **2010**,		1
64	Application of the virtual reference feedback tuning on wastewater treatment plants: A simulation study **2010**,		1
63	Digital inverse model control using Generalised holds with extensions to the adaptive case. *International Journal of Control, Automation and Systems*, **2010**, 8, 707-719	2.9	2
62	PID autotuning for weighted servo/regulation control operation. *Journal of Process Control*, **2010**, 20, 472-480	3.9	40
61	On the model matching approach to PID design: Analytical perspective for robust Servo/Regulator tradeoff tuning. *Journal of Process Control*, **2010**, 20, 596-608	3.9	31
60	Stability analysis for the intermediate servo/regulation PID tuning **2009**,		1
59	Towards integral human-machine system conception: From automation design to usability concerns **2009**,		2
58	Multi-Model Smith Predictor Based Control of Multivariable Systems with Uncertain Bounded External Delays. *IEEE Latin America Transactions*, **2009**, 7, 42-53	0.7	4
57	IMC based feedforward controller framework for disturbance attenuation on uncertain systems. *ISA Transactions*, **2009**, 48, 439-48	5.5	30
56	Robust tuning of Two-Degree-of-Freedom (2-DoF) PI/PID based cascade control systems. *Journal of Process Control*, **2009**, 19, 1658-1670	3.9	43
55	Model reduction approach for digital PID control based on generalized holds **2009**,		1
54	Fragility analysis of PID controllers **2009**,		9

53	Analytical H design for a Smith-type inverse-response compensator **2009**,		4
52	NORT: a non-oscillatory robust tuning approach for 2-DoF PI controllers **2009**,		4
51	Observer Controller Design for a Class of Stable/Unstable Inverse Response Processes. *Industrial & Engineering Chemistry Research*, **2009**, 48, 10986-10993	3.9	3
50	General Smith Predictors from an Observer-Controller perspective **2009**,		3
49	Multi-loop PI-based control strategies for the Activated Sludge Process **2009**,		9
48	Guidelines for controller structure in the Two Degrees of Freedom VRFT framework based on a Correlation Test **2009**,		1
47	Setpoint-oriented robust PID tuning from a simple min-max model matching specification **2009**,		1
46	On estimation of unknown state variables in wastewater systems **2009**,		4
45	Frequency-dependent approach to model validation for iterative identification and control schemes. *IET Control Theory and Applications*, **2009**, 3, 98-109	2.5	2
44	Control de Dos-Grados-de-Libertad (2-GdL) aplicados al Benchmark de Sistemas para Controladores PID. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2009**, 6, 59-67	1.5	5
43	Considerations on Set-Point Weight choice for 2-DoF PID Controllers. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 721-726		11
42	Feedforward based two degrees of freedom formulation of the Virtual Reference Feedback Tuning approach **2009**,		3
41	A single-parameter robust tuning approach for Two-Degree-of-Freedom PID controllers **2009**,		7
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