Guillermo Valencia-Palomo

List of Publications by Year
in descending order

66 papers	930 citations	430874 18 h-index	526287 27 g-index
67 all docs	67 docs citations	67 times ranked	756 citing authors

#	Article	IF	Citations
1	Programmable logic controller implementation of an auto-tuned predictive control based on minimal plant information. ISA Transactions, 2011, 50, 92-100.	5.7	61
2	Efficient algorithms for trading off feasibility and performance in predictive control. International Journal of Control, 2010, 83, 789-797.	1.9	46
3	Efficient suboptimal parametric solutions to predictive control for PLC applications. Control Engineering Practice, 2011, 19, 732-743.	5.5	45
4	Actuator fault detection and isolation on a quadrotor unmanned aerial vehicle modeled as a linear parameter-varying system. Measurement and Control, 2019, 52, 1228-1239.	1.8	44
5	Leak diagnosis in pipelines using a combined artificial neural network approach. Control Engineering Practice, 2021, 107, 104677.	5.5	42
6	A Review of Convex Approaches for Control, Observation and Safety of Linear Parameter Varying and Takagi-Sugeno Systems. Processes, 2019, 7, 814.	2.8	40
7	Nonlinear control strategies for a UAV carrying a load with swing attenuation. Applied Mathematical Modelling, 2021, 91, 709-722.	4.2	36
8	Sensor Fault Diagnosis Based on a Sliding Mode and Unknown Input Observer for Takagi–Sugeno Systems with Uncertain Premise Variables. Asian Journal of Control, 2019, 21, 339-353.	3.0	34
9	Diagnosis of Fluid Leaks in Pipelines Using Dynamic PCA. IFAC-PapersOnLine, 2018, 51, 373-380.	0.9	28
10	Improving the feed-forward compensator in predictive control for setpoint tracking. ISA Transactions, 2014, 53, 755-766.	5.7	27
11	Fault diagnosis observer for descriptor Takagi-Sugeno systems. Neurocomputing, 2019, 331, 10-17.	5.9	26
12	Systematic selection of tuning parameters for efficient predictive controllers using a multiobjective evolutionary algorithm. Applied Soft Computing Journal, 2015, 31, 326-338.	7.2	25
13	Energy-Based Control and LMI-Based Control for a Quadrotor Transporting a Payload. Mathematics, 2019, 7, 1090.	2.2	24
14	Novel programmable logic controller implementation of a predictive controller based on Laguerre functions and multiparametric solutions. IET Control Theory and Applications, 2012, 6, 1003-1014.	2.1	23
15	Observer synthesis for a class of Takagi–Sugeno descriptor system with unmeasurable premise variable. Application to fault diagnosis. International Journal of Systems Science, 2017, 48, 3419-3430.	5.5	20
16	On control of discrete-time state-dependent jump linear systems with probabilistic constraints: A receding horizon approach. Systems and Control Letters, 2014, 74, 81-89.	2.3	19
17	Fault diagnosis in wind turbines based on ANFIS and Takagi–Sugeno interval observers. Expert Systems With Applications, 2022, 206, 117698.	7.6	19
18	Using Laguerre functions to improve efficiency of multi-parametric predictive control. , 2010, , .		18

#	Article	IF	Citations
19	Exploiting Kautz functions to improve feasibility in MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6777-6782.	0.4	18
20	Filtered Observer-Based IDA-PBC Control for Trajectory Tracking of a Quadrotor. IEEE Access, 2021, 9, 114821-114835.	4.2	17
21	Sensor Fault Diagnosis Observer for an Electric Vehicle Modeled as a Takagi-Sugeno System. Journal of Sensors, 2018, 2018, 1-9.	1.1	16
22	Robust IDA-PBC for under-actuated systems with inertia matrix dependent of the unactuated coordinates: application to a UAV carrying a load. Nonlinear Dynamics, 2021, 105, 3225-3238.	5.2	16
23	Modeling and Simulation of a Hydraulic Network for Leak Diagnosis. Mathematical and Computational Applications, 2018, 23, 70.	1.3	15
24	A Predictive Control Strategy for Aerial Payload Transportation with an Unmanned Aerial Vehicle. Mathematics, 2021, 9, 1822.	2.2	15
25	Predictive Control implementation in a PLC using the IEC 1131.3 programming standard. , 2009, , .		14
26	Auto-tuned Predictive Control Based on Minimal Plant Information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 554-559.	0.4	13
27	Alternative parameterisations for predictive control: How and why?. , 2011, , .		13
28	Comparative Analysis between Conventional PI and Fuzzy LogicPI Controllers for Indoor Benzene Concentrations. Sustainability, 2015, 7, 5398-5412.	3.2	13
29	Object Transportation Using a Cooperative Mobile Multi-Robot System. IEEE Latin America Transactions, 2016, 14, 1184-1191.	1.6	13
30	Actuator fault estimation based on a proportional-integral observer with nonquadratic Lyapunov functions. International Journal of Systems Science, 2021, 52, 1938-1951.	5.5	13
31	Actuator and sensor fault estimation based on a proportional multiple‐integral sliding mode observer for linear parameter varying systems with inexact scheduling parameters. International Journal of Robust and Nonlinear Control, 2021, 31, 8420-8441.	3.7	13
32	Decentralized robust tube-based model predictive control: Application to a four-tank -system. Revista Mexicana De Ingeniera Quimica, 2020, 19, 1135-1151.	0.4	12
33	Pressure Sensor Placement for Leak Localization in Water Distribution Networks Using Information Theory. Sensors, 2022, 22, 443.	3.8	12
34	Long horizon input parameterisations to enlarge the region of attraction of MPC. Optimal Control Applications and Methods, 2016, 37, 139-153.	2.1	10
35	Environmental Impacts of Energy Saving Actions in an Academic Building. Sustainability, 2019, 11, 989.	3.2	10
36	Passivity‐based control laws for an unmanned powered parachute aircraft. Asian Journal of Control, 2021, 23, 2087-2096.	3.0	10

#	Article	IF	Citations
37	HVAC Control System Using Predicted Mean Vote Index for Energy Savings in Buildings. Buildings, 2022, 12, 38.	3.1	10
38	Feed forward design in MPC. , 2009, , .		8
39	Non-Intrusive Electric Load identification using Wavelet Transform. Ingenieria E Investigacion, 2018, 38, 42-51.	0.4	8
40	Robust qLPV Tracking Fault-Tolerant Control of a 3 DOF Mechanical Crane. Mathematical and Computational Applications, 2020, 25, 48.	1.3	8
41	Simultaneous Optimal Estimation of Roughness and Minor Loss Coefficients in a Pipeline. Mathematical and Computational Applications, 2020, 25, 56.	1.3	8
42	Observer for a class of Lipschitz nonlinear systems with multiple time‐varying delays in the nonlinear measured outputs. Asian Journal of Control, 2022, 24, 1122-1132.	3.0	8
43	A move-blocking strategy to improve tracking in predictive control. , 2010, , .		6
44	Actuator and sensor fault estimation based on a proportional-integral quasi-LPV observer with inexact scheduling parameters. IFAC-PapersOnLine, 2019, 52, 100-105.	0.9	6
45	Observer-based LPV stabilization system for a riderless bicycle. IEEE Latin America Transactions, 2018, 16, 1076-1083.	1.6	5
46	Efficient predictive vibration control of a building‐like structure. Asian Journal of Control, 2020, 22, 1411-1421.	3.0	5
47	Detección de fallas en vehículos aéreos no tripulados mediante señales de orientación y técnicas de aprendizaje de máquina. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2021, 18, 254.	1.0	4
48	Observer for non‐linear systems with sampled measurements: Application to the friction factor estimation of a pipeline. IET Control Theory and Applications, 2021, 15, 432-445.	2.1	4
49	Modeling PD Closed-loop Control Problems with Fuzzy Differential Equations. Automatika, 2016, 57, 960-967.	2.0	3
50	Fabrication and Characterization of CdS Thin Film Synthesized by CBD Deposited from pH-Controlled Growth Solutions for Solar Cells Applications. Metallography, Microstructure, and Analysis, 2016, 5, 62-68.	1.0	3
51	Optimal control in a pipeline coupled to a pressure reducing valve for pressure management and leakage reduction. , 2021, , .		3
52	Predictive Control in Water Distribution Systems for Leak Reduction and Pressure Management via a Pressure Reducing Valve. Processes, 2022, 10, 1355.	2.8	3
53	PLC implementation of a predictive controller using Laguerre functions and multi-parametric solutions. , 2010, , .		2
54	Pressure Effect on the Deposition in the a-Si:H Films by PECVD Process for Solar Cell Applications. Microscopy and Microanalysis, 2015, 21, 297-298.	0.4	2

#	Article	IF	Citations
55	FAULT DIAGNOSIS SYSTEMS IN UNMANNED AERIAL VEHICLES. Dyna (Spain), 2020, 95, 352-352.	0.2	2
56	Disturbance observer for uncertain Lipschitz nonlinear systems under multiple time-varying delays. Computational and Applied Mathematics, 2022, 41, 1.	2.2	2
57	Efficient suboptimal parametric implementations for predictive control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 551-556.	0.4	1
58	Using the second-order information for reconfigurability analysis and design in the fault tolerant framework. Automatika, 2018, 59, 51-62.	2.0	1
59	Implementation of a Distributed Optimal Predictive Control in a Quadruple Tank System. IEEE Latin America Transactions, 2019, 17, 135-146.	1.6	1
60	Recent Advances on Optimization for Control, Observation, and Safety. Processes, 2020, 8, 201.	2.8	1
61	Optimal Estimation of the Roughness Coefficient and Friction Factor of a Pipeline. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	1.5	1
62	Vibration Control Using a Positive Position Feedback-based Predictive Controller Applied to a One-Bay Three-Story Scaled Shear Frame. Journal of Vibration Engineering and Technologies, 2023, 11, 873-885.	2.2	1
63	TEST-BASED PARAMETER ESTIMATION OF A BENCH-SCALE DISTILLATION COLUMN FOR PREDICTIVE CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 315-320.	0.4	0
64	An Improved Move-Blocking Strategy in Predictive Control for Setpoint Tracking. IEEE Latin America Transactions, 2017, 15, 806-812.	1.6	0
65	On the Selection of Tuning Parameters in Predictive Controllers Based on NSGA-II. Studies in Computational Intelligence, 2019, , 138-157.	0.9	0
66	Advanced Mathematics and Computational Applications in Control Systems Engineering. Mathematical and Computational Applications, 2021, 26, 20.	1.3	0