

Edvaldo Assunção

List of Publications by Year in descending order

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103
papers

1,242
citations

623734

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434195

31
g-index

104
all docs

104
docs citations

104
times ranked

684
citing authors

#	ARTICLE	IF	CITATIONS
1	On relaxed LMI-based designs for fuzzy regulators and fuzzy observers. IEEE Transactions on Fuzzy Systems, 2003, 11, 613-623.	9.8	336
2	Variable-Structure Control Design of Switched Systems With an Application to a DC-DC Power Converter. IEEE Transactions on Industrial Electronics, 2009, 56, 3505-3513.	7.9	91
3	Robust state-derivative feedback LMI-based designs for multivariable linear systems. International Journal of Control, 2007, 80, 1260-1270.	1.9	75
4	Robust state-derivative pole placement LMI-based designs for linear systems. International Journal of Control, 2009, 82, 1-12.	1.9	52
5	On Switched Regulator Design of Uncertain Nonlinear Systems Using Takagi-Sugeno Fuzzy Models. IEEE Transactions on Fuzzy Systems, 2014, 22, 1720-1727.	9.8	47
6	Identification of Fractional-Order Transfer Functions Using a Step Excitation. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 896-900.	3.0	32
7	Design of a Takagi-Sugeno Fuzzy Regulator for a Set of Operation Points. Mathematical Problems in Engineering, 2012, 2012, 1-17.	1.1	29
8	On local switched controller design for uncertain Takagi-Sugeno fuzzy systems subject to actuator saturation with unknown membership functions. Fuzzy Sets and Systems, 2018, 344, 1-26.	2.7	26
9	Robust State-Derivative Feedback LMI-Based Designs for Linear Descriptor Systems. Mathematical Problems in Engineering, 2010, 2010, 1-15.	1.1	23
10	Observer-Based Control Design for Switched Affine Systems and Applications to DC-DC Converters. Journal of Control, Automation and Electrical Systems, 2013, 24, 535-543.	2.0	22
11	H_2 and H_∞ -optimal control for the tracking problem with zero variation. IET Control Theory and Applications, 2007, 1, 682-688.	2.1	19
12	Smoothing switched control laws for uncertain nonlinear systems subject to actuator saturation. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1408-1433.	4.1	17
13	New gain-scheduled static output feedback controller design strategy for stability and transient performance of LPV systems. IET Control Theory and Applications, 2020, 14, 717-725.	2.1	17
14	Robust control to parametric uncertainties in smart structures using linear matrix inequalities. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2004, 26, 430-437.	1.6	15
15	Global optimization for the H_2 -norm model reduction problem. International Journal of Systems Science, 2007, 38, 125-138.	5.5	15
16	Stabilizability and Disturbance Rejection with State-Derivative Feedback. Mathematical Problems in Engineering, 2010, 2010, 1-12.	1.1	15
17	Parameter-dependent Lyapunov functions for state-derivative feedback control in polytopic linear systems. International Journal of Control, 2011, 84, 1377-1386.	1.9	14
18	On Switched Control Design of Linear Time-Invariant Systems with Polytopic Uncertainties. Mathematical Problems in Engineering, 2013, 2013, 1-10.	1.1	14

#	ARTICLE	IF	CITATIONS
19	New Design of Robust LQR-State Derivative Controllers via LMIs. IFAC-PapersOnLine, 2018, 51, 422-427.	0.9	13
20	Robust Switched Control Design for Nonlinear Systems Using Fuzzy Models. Mathematical Problems in Engineering, 2014, 2014, 1-11.	1.1	12
21	Electrical stimulation tracking control for paraplegic patients using Takagi-Sugeno fuzzy models. Fuzzy Sets and Systems, 2017, 314, 1-23.	2.7	12
22	LQR-LMI control applied to convex-bounded domains. Cogent Engineering, 2018, 5, 1457206.	2.2	12
23	A Method for Plotting the Complementary Root Locus Using the Root-Locus (Positive Gain) Rules. IEEE Transactions on Education, 2004, 47, 405-409.	2.4	11
24	Proportional Controllers: Direct Method for Stability Analysis and MATLAB Implementation. IEEE Transactions on Education, 2007, 50, 74-78.	2.4	11
25	LMI-based algorithm for strictly positive real systems with static output feedback. Systems and Control Letters, 2012, 61, 521-527.	2.3	11
26	Robust controller implementation via state-derivative feedback in an active suspension system subjected to fault. , 2013, , .		10
27	Direct discrete time design of robust state derivative feedback control laws. International Journal of Control, 2018, 91, 70-84.	1.9	10
28	Signal-flow graphs: direct method of reduction and MATLAB implementation. IEEE Transactions on Education, 2001, 44, 185-190.	2.4	9
29	LMI-based digital redesign of linear time-invariant systems with state-derivative feedback. , 2009, , .		9
30	Output control of continuous-time uncertain switched linear systems via switched static output feedback. International Journal of Control, 2020, 93, 1127-1146.	1.9	9
31	On lag controllers: design and implementation. IEEE Transactions on Education, 2002, 45, 285-288.	2.4	8
32	Design of SPR Systems with Dynamic Compensators and Output Variable Structure Control. , 0, , .		8
33	Controle Adaptativo de sistemas não-lineares com modelos fuzzy takagi-sugeno. Controle and Automacao, 2008, 19, 256-269.	0.2	8
34	Control Designs for Linear Systems Using State-Derivative Feedback. , 0, , .		8
35	Necessary and sufficient condition for generalized passivity, passification and application to multivariable adaptive systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3433-3438.	0.4	8
36	Stability of Nonlinear System Using Takagi-Sugeno Fuzzy Models and Hyper-Rectangle of LMIs. Journal of Control, Automation and Electrical Systems, 2013, 24, 46-53.	2.0	8

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37	Lyapunov Design of Multivariable MRAC via Generalized Passivation. Asian Journal of Control, 2015, 17, 1484-1497.	3.0	8
38	H_2 / H_∞ formulation of LQR controls based on LMI for continuous-time uncertain systems. International Journal of Systems Science, 2021, 52, 612-634.	5.5	8
39	Less Conservative Control Design for Linear Systems with Polytopic Uncertainties via State-Derivative Feedback. Mathematical Problems in Engineering, 2012, 2012, 1-21.	1.1	7
40	Robust Control of Switched Linear Systems with Output Switching Strategy. Journal of Control, Automation and Electrical Systems, 2015, 26, 455-465.	2.0	7
41	Robust switched control based on strictly positive real systems and variable structure control techniques. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1244-1268.	4.1	7
42	Design of Gain Scheduling Control Using State Derivative Feedback. Mathematical Problems in Engineering, 2017, 2017, 1-11.	1.1	7
43	Relaxed Stabilization Conditions for TS Fuzzy Systems With Optimal Upper Bounds for the Time Derivative of Fuzzy Lyapunov Functions. IEEE Access, 2021, 9, 64945-64957.	4.2	7
44	Digital controller design considering hardware constraints: application in a paraplegic patient. Revista Brasileira De Engenharia Biomedica, 2014, 30, 232-241.	0.3	7
45	Discussion on: H Output Feedback Control Design for Uncertain Fuzzy Systems with Multiple Time Scales: An LMI Approach. European Journal of Control, 2005, 11, 167-170.	2.6	7
46	Robust Model Predictive Control of a Benchmark Electromechanical System. Journal of Control, Automation and Electrical Systems, 2016, 27, 119-131.	2.0	6
47	A new OFRMPC formulation with on-line synthesis of the dynamic output feedback controller. International Journal of Robust and Nonlinear Control, 2017, 27, 3921-3936.	3.7	6
48	New less conservative methods of robust controllers design using state derivative feedback. IFAC-PapersOnLine, 2018, 51, 122-127.	0.9	6
49	Versatile Ultrasonic Spectrometer for Liquids With Practical Sample Handling by Using Standard Cuvettes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 109-118.	3.0	6
50	Less conservative conditions for robust LQR-state-derivative controller design: an LMI approach. International Journal of Systems Science, 2021, 52, 2518-2537.	5.5	6
51	An LMI Approach to Full- and Reduced-Order Switched Luenberger Observers for Switched Affine Systems. Journal of Control, Automation and Electrical Systems, 2016, 27, 587-596.	2.0	5
52	Relaxed LMI Conditions for the Design of Robust Static Output Feedback Controllers. IFAC-PapersOnLine, 2018, 51, 428-433.	0.9	5
53	Fuzzy interval optimal control problem. Fuzzy Sets and Systems, 2020, 385, 169-181.	2.7	5
54	Design of a Fuzzy Takagi-Sugeno Controller to Vary the Joint Knee Angle of Paraplegic Patients. Lecture Notes in Computer Science, 2006, , 118-126.	1.3	5

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55	Realimentação derivativa e modelo fuzzy Takagi-Sugeno para controle da articulação do joelho de pacientes paraplégicos com o uso de acelerômetros. Revista Brasileira De Engenharia Biomedica, 2011, 27, 67-78.	0.3	5
56	On relaxed LMI-based design for fuzzy controllers. , 0, , .		4
57	Controle H2 e H ∞ com modificação de zeros para o problema de rastreamento usando LMI. Controle and Automacao, 2004, 15, 413-422.	0.2	4
58	A Comparative Study Between Two Relaxed LMI-Based Fuzzy Control Designs. , 0, , .		4
59	Variable Structure Control of switched systems based on Lyapunov-Metzler-SPR systems. , 2008, , .		4
60	Análise de estabilidade de sistemas incertos através do critério de Routh.. Semina: Ciências Exatas E Tecnológicas, 2008, 29, 119.	0.1	4
61	A comparison of performance indexes in DC-DC converters under different stabilizing state-dependent switching laws. , 2011, , .		4
62	New Techniques for Optimizing the Norm of Robust Controllers of Polytopic Uncertain Linear Systems. , 0, , .		4
63	Robust Control of the Knee Joint Angle of Paraplegic Patients considering Norm-Bounded Uncertainties. Mathematical Problems in Engineering, 2015, 2015, 1-8.	1.1	4
64	Robust Controller Design Of A Wheelchair Mobile Via Lmi Approach To Erp Systems With Feedback Output. IEEE Latin America Transactions, 2015, 13, 1321-1330.	1.6	4
65	Robust T-S Fuzzy Control of Electrostimulation for Paraplegic Patients considering Norm-Bounded Uncertainties. Mathematical Problems in Engineering, 2020, 2020, 1-28.	1.1	4
66	Identification of fractional-order transfer functions using exponentially modulated signals with arbitrary excitation waveforms. ISA Transactions, 2020, 103, 10-18.	5.7	4
67	Design of Fuzzy Regulators with Optimal Initial Conditions Compensation. , 2006, , .		3
68	On Complementary Root Locus of Biproper Transfer Functions. Mathematical Problems in Engineering, 2009, 2009, 1-14.	1.1	3
69	Smoothing switched control for uncertain T-S fuzzy systems with unknown membership functions, actuator saturation and disturbance. , 2016, , .		3
70	Regional pole placement for discrete-time systems using convex approximations. , 2017, , .		3
71	Direct Design of Controllers Using Complementary State and State-Derivative Feedback. Journal of Control, Automation and Electrical Systems, 2019, 30, 181-193.	2.0	3
72	A necessary and sufficient condition for the stability of interval difference equation via interval Lyapunov equation. Soft Computing, 2022, 26, 5043-5056.	3.6	3

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73	Alocação de zeros aplicada a sistemas de controle via LMI. Controle and Automacao, 2007, 18, 55-66.	0.2	2
74	Comparative study of LMI-based output feedback SPR synthesis for plants with different numbers of inputs and outputs. , 2008, , .		2
75	Implementation of a DC-DC converter with variable structure control of switched systems. , 2011, , .		2
76	Less Conservative Optimal Robust Control of a 3-DOF Helicopter. Journal of Control Science and Engineering, 2015, 2015, 1-10.	1.0	2
77	A Dynamic-State Feedback Approach Employing a New State-Space Description for the Fast Wavelet Transform with Multiple Decomposition Levels. Journal of Control, Automation and Electrical Systems, 2017, 28, 303-313.	2.0	2
78	Switched Optimized Robust Control of Uncertain LPV Systems Subject to Structural Faults. IFAC-PapersOnLine, 2018, 51, 353-358.	0.9	2
79	On switched control of discrete-time Takagi-Sugeno fuzzy systems with unknown membership functions. , 2018, , .		2
80	Realimentação da derivada dos estados em sistemas multivariáveis lineares usando LMIs. Controle and Automacao, 2009, 20, 83-93.	0.2	1
81	Dynamic Tracking with Zero Variation and Disturbance Rejection Applied to Discrete-Time Systems. Mathematical Problems in Engineering, 2010, 2010, 1-20.	1.1	1
82	Design and Implementation of a DC-DC Converter Based on Variable Structure Control of Switched Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11048-11054.	0.4	1
83	Discrete-time design of state-derivative feedback control laws. , 2013, , .		1
84	Performance enhancement of switched affine systems by switched quadratic Lyapunov functions: Applications in DC-DC converters. , 2013, , .		1
85	Switched optimal robust control of a 3-DOF helicopter subject to a critical fault. , 2016, , .		1
86	Robust H [∞] Switched State-feedback Control of Uncertain Linear Systems. IFAC-PapersOnLine, 2018, 51, 67-72.	0.9	1
87	On Switched Controller Design for Robust Control of Uncertain Polynomial Nonlinear Systems Using Sum of Squares. IFAC-PapersOnLine, 2018, 51, 269-274.	0.9	1
88	Switched Control for Local Stabilization of Discrete-time Uncertain Takagi-Sugeno Fuzzy Systems with Relaxed Estimate of the Domain of Attraction. , 2020, , .		1
89	Switched Control and Tracking Application in Aeropendulum System using Fuzzy Models. , 2021, , .		1
90	A GLOBAL OPTIMIZATION APPROACH FOR THE PROBLEM OF CONTROLLER ORDER REDUCTION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 307-312.	0.4	0

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91	Comments on "Magnetically levitated micro PM motors by two types of active magnetic bearings". IEEE/ASME Transactions on Mechatronics, 2002, 7, 99-100.	5.8	0
92	Metodologia para rastreamento com modificação dos zeros e rejeição de distúrbio aplicada a sistemas incertos. Controle and Automacao, 2008, 19, 43-52.	0.2	0
93	Síntese de Sistemas Estritamente Reais Positivos através do Critério de Routh-Hurwitz. Controle and Automacao, 2010, 21, 215-223.	0.2	0
94	Representation and classification of iris textures based on diagonal linear discriminant analysis. , 2011, , .		0
95	Estabilização de sistemas fuzzy T-S incertos usando realimentação derivativa. Controle and Automacao, 2011, 22, 273-283.	0.2	0
96	Derivative Feedback Control for a Class of Uncertain Linear Systems Subject to Actuator Saturation. Journal of Control, Automation and Electrical Systems, 2019, 30, 490-500.	2.0	0
97	On Robust Switched Controller Design to Minimize the Guaranteed Cost of Polynomial Fuzzy Systems. , 2019, , .		0
98	Corrigendum to: "A new OFRMPC formulation with online synthesis of the dynamic output feedback controller". International Journal of Robust and Nonlinear Control, 2021, 31, 6091-6092.	3.7	0
99	Design of an gain scheduling state derivative feedback controller for linear parameter-varying systems. International Journal of Control, 0, , 1-17.	1.9	0
100	Robust Guaranteed Cost Switched Controller Design using Static Output Feedback. Journal of Control, Automation and Electrical Systems, 2022, 33, 115-128.	2.0	0
101	Hardware Implementation of an Analog Neural Nonderivative Optimizer. Lecture Notes in Computer Science, 2006, , 1131-1140.	1.3	0
102	Comments on "Less conservative conditions for robust LQR-state-derivative controller design: an LMI approach" and new sufficient LMI conditions for invertibility of a convex combination of matrices. International Journal of Systems Science, 0, , 1-9.	5.5	0
103	Stabilization and disturbance rejection with decay rate bounding in discrete-time linear parameter-varying systems via \hat{z} gain scheduling static output feedback control. International Journal of Robust and Nonlinear Control, 0, , .	3.7	0