InÃ©s Tejado

List of Publications by Year
in descending order

94 papers	904 citations	516710 16 h-index	552781 26 g-index
97 all docs	97 docs citations	97 times ranked	800 citing authors

#	Article	IF	Citations
1	Purcell's three-link microswimmer based on IPMC: Simulations in COMSOL Multiphysics. IEEE Latin America Transactions, 2022, 20, 474-480.	1.6	0
2	Cardiovascular Circulatory System and Left Carotid Model: A Fractional Approach to Disease Modeling. Fractal and Fractional, 2022, 6, 64.	3.3	9
3	Modelling Cardiovascular Diseases withÂFractional-Order Derivatives. Lecture Notes in Networks and Systems, 2022, , 52-57.	0.7	1
4	Modeling and Control of IPMC-Based Artificial Eukaryotic Flagellum Swimming Robot: Distributed Actuation. Algorithms, 2022, 15, 181.	2.1	5
5	CART-PENDULUM PLATFORM IN CONTROL LEARNING IN ENGINEERING: FIRST STEPS TO CREATE ITS DIGITAL TWIN. EDULEARN Proceedings, 2022, , .	0.0	0
6	DESIGN OF AN ESCAPE ROOM TO SUPPORT LEARNING OF INDUSTRIAL PROCESS CONTROL IN ENGINEERING DEGREES. INTED Proceedings, 2021, , .	0.0	2
7	TEACHING AUTOMATIC CONTROL IN ENGINEERING DEGREES IN THE COVID-19 ERA: SIMULATORS BASED ON PHYSICAL MODELING TOOLS AS ALTERNATIVE. , 2021, , .		0
8	Performance study of propulsion of N-link artificial Eukaryotic flagellum swimming microrobot within a fractional order approach: From simulations to hardware-in-the-loop experiments. European Journal of Control, 2021, 58, 340-356.	2.6	3
9	Fractional modeling of flexural behavior of toenail plates: First step for clinical purposes. Medical Engineering and Physics, 2021, 90, 23-32.	1.7	1
10	Purcellâ€™s Three-Link Swimmer: Assessment of Geometry and Gaits for Optimal Displacement and Efficiency. Mathematics, 2021, 9, 1088.	2.2	1
11	A laboratory for teaching process control: The wastewater treatment plant. International Journal of Electrical Engineering and Education, 2020, , 002072091989756.	0.8	2
12	Fractional Derivatives for Economic Growth Modelling of the Group of Twenty: Application to Prediction. Mathematics, 2020, 8, 50.	2.2	15
13	Evaluating an AEF Swimming Microrobot Using a Hardware-in-the-loop Testbed. Advances in Intelligent Systems and Computing, 2020, , 524-536.	0.6	0
14	Introducing systems theory with virtual laboratories at the University of Extremadura: How to improve learning in the lab in engineering degrees. International Journal of Electrical Engineering and Education, 2019, , 002072091987681.	0.8	2
15	Stable force control and contact transition of a single link flexible robot using a fractional-order controller. ISA Transactions, 2019, 89, 139-157.	5.7	34
16	Back to Basics: Meaning of the Parameters of Fractional Order PID Controllers. Mathematics, 2019, 7, 530.	2.2	46
17	Fractional Calculus in Economic Growth Modelling of the Group of Seven. Fractional Calculus and Applied Analysis, 2019, 22, 139-157.	2.2	24
18	Frequency Domain Based Fractional Order Modeling of IPMC Actuators for Control. , 2019, , .		1

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19	Improved Locomotion of an AEF Swimming Robot Using Fractional Order Control. , 2019, , .		4
20	Nonlinear control methods. , 2019, , 1-28.		0
21	Modeling Mechanical Impedance of Environment in Flexible Robotics Applications. , 2019, , .		0
22	Projective synchronization for two nonidentical time-delayed fractional-order Tâ€“S fuzzy neural networks based on mixed $${H_infty }$$ H âˆž /passive adaptive sliding mode control. International Journal of Machine Learning and Cybernetics, 2019, 10, 799-812.	3.6	5
23	SHARING BEST PRACTICES AND CONSIDERATIONS ON INTERACTIVE TOOLS IN ENGINEERING EDUCATION. EDULEARN Proceedings, 2019, , .	0.0	0
24	INDUSTRIAL PROCESS CONTROL EDUCATION WITH A WASTEWATER TREATMENT PLANT. , 2019, , .		0
25	Mixed $$H_infty $$ H âˆž /Passive Projective Synchronization for Nonidentical Uncertain Fractional-Order Neural Networks Based on Adaptive Sliding Mode Control. Neural Processing Letters, 2018, 47, 443.	3.2	7
26	Adaptive projective synchronization for time-delayed fractional-order neural networks with uncertain parameters and its application in secure communications. Transactions of the Institute of Measurement and Control, 2018, 40, 3078-3087.	1.7	28
27	Artificial Flagellum Microrobot. Design and Simulation in COMSOL. Advances in Intelligent Systems and Computing, 2018, , 491-501.	0.6	3
28	Comparing Classical and Fractional Order Control Strategies of a Cardiovascular Circulatory System Simulator. IFAC-PapersOnLine, 2018, 51, 48-53.	0.9	2
29	Reliable ${L_{2}} - {L_{infty} }$ State Estimation for Markovian Jump Reaction-Diffusion Neural Networks With Sensor Saturation and Asynchronous Failure. IEEE Access, 2018, 6, 50066-50076.	4.2	15
30	Testing non reciprocal motion of a swimming flexible small robot with single actuation. , 2018, , .		2
31	FIRST STEPS IN THE INTRODUCTION OF AUTOMATIC EVALUATION IN VIRTUAL LABORATORIES FOR CONTROL ENGINEERING. , 2018, , .		0
32	A WEB-BASED VIRTUAL CONTROL LABORATORY OF THE INVERTED PENDULUM. INTED Proceedings, 2018, , .	0.0	0
33	Fractional calculus in economic growth modelling: the Spanish and Portuguese cases. International Journal of Dynamics and Control, 2017, 5, 208-222.	2.5	40
34	Adaptive interval type-2 fuzzy sliding modeÂcontrol for fractional-order systems based on finite-time scheme. Journal of Intelligent and Fuzzy Systems, 2017, 32, 1903-1915.	1.4	8
35	Mixed Hâˆž and passive projective synchronization for fractional-order memristor-based neural networks with time delays via adaptive sliding mode control. Modern Physics Letters B, 2017, 31, 1750160.	1.9	9
36	Two Strategies for Fractional Sliding Mode Control of Integer Order Systems by System Augmentation: Application to a Servomotor * *This work has been partially supported by the FEDER Funds (Programa Operativo FEDER de Extremadura 2014-2020) through the grant â€œAyuda a Grupos de InvestigaciÃ³nâ€•(ref. GR15178) of the Junta de Extremadura and by the Spanish Ministry of Economy and Competitiveness under the project with reference DPI2016-80547-R.. IFAC-PapersOnLine, 2017, 50, 8103-8108.	0.9	7

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37	MixedH_{â^ž}and Passive Projective Synchronization for Fractional Order Memristor-Based Neural Networks with Time-Delay and Parameter Uncertainty. Communications in Theoretical Physics, 2017, 68, 483.	2.5	2
38	Multi-switching adaptive synchronization of two fractional-order chaotic systems with different structure and different order. International Journal of Control, Automation and Systems, 2017, 15, 1524-1535.	2.7	14
39	Adaptive projective synchronization for fractional-order T-S fuzzy neural networks with time-delay and uncertain parameters. Optik, 2017, 129, 140-152.	2.9	24
40	A comparative study of planar waveforms for propulsion of a joined artificial bacterial flagella swimming robot. , 2017, , .		4
41	Synchronization of Two Fractional-Order Chaotic Systems via Nonsingular Terminal Fuzzy Sliding Mode Control. Journal of Control Science and Engineering, 2017, 2017, 1-11.	1.0	12
42	Loop transfer recovery for fractional order control systems. First results. , 2016, , .		0
43	Thereâ€™s Plenty of Fractional at the Bottom, I: Brownian Motors and Swimming Microrobots. Fractional Calculus and Applied Analysis, 2016, 19, 1282-1291.	2.2	9
44	Low-cost Hardware-in-the-loop Testbed of a Mobile Robot to Support Learning in Automatic Control and Robotics**This work has been supported by the Spanish Ministry of Economy and Competitiveness under the project DPI2012-37062-C02-02 and the Junta de Extremadura under the Ayuda a Grupos with reference GR15178.. IFAC-PapersOnLine, 2016, 49, 242-247.	0.9	21
45	Physical Modeling based Simulators to Support Teaching in Automatic Control: the Rotatory Pendulum**This work has been supported by the Spanish Ministry of Economy and Competitiveness under the project DPI2012-37062-C02-02 and the Junta de Extremadura under the Ayuda a Grupos with reference GR15178.. IFAC-PapersOnLine, 2016, 49, 75-80.	0.9	7
46	Output feedback control for fractional-order Takagiâ€“Sugeno fuzzy systems with unmeasurable premise variables. Transactions of the Institute of Measurement and Control, 2016, 38, 1201-1211.	1.7	10
47	Fractional direct and inverse models of the dynamics of a human arm. JVC/Journal of Vibration and Control, 2016, 22, 2240-2254.	2.6	4
48	VIRTUAL LABORATORIES TO SUPPORT LEARNING IN INTRODUCTORY AUTOMATIC CONTROL COURSES: THE UNIVERSITY OF EXTREMADURA PILOT EXPERIENCE. , 2016, , .		0
49	PHYSICAL MODELING BASED SIMULATORS TO SUPPORT LABORATORY LEARNING IN AUTOMATIC CONTROL AND ROBOTICS. , 2016, , .		1
50	Iterative Learning and Fractional Reset Control. , 2015, , .		4
51	Fractional Calculus in Economic Growth Modelling: The Spanish Case. Lecture Notes in Electrical Engineering, 2015, , 449-458.	0.4	6
52	Fractional Approach for Estimating Sap Velocity in Trees. Fractional Calculus and Applied Analysis, 2015, 18, 479-494.	2.2	1
53	Identifying a non-commensurable fractional transfer function from a frequency response. Signal Processing, 2015, 107, 254-264.	3.7	22
54	Direct and Inverse Models of Human Arm Dynamics. , 2015, , .		1

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55	Fractional models for measuring sap velocities in trees. , 2014, , .		0
56	Hybrid systems and control with fractional dynamics (II): Control. , 2014, , .		2
57	Fractional calculus in economic growth modeling. The Portuguese case. , 2014, , .		16
58	Hybrid systems and control with fractional dynamics (I): Modeling and analysis. , 2014, , .		2
59	Fractional disturbance observer for vibration suppression of a beam-cart system. , 2014, , .		0
60	Experimental Application of Hybrid Fractional-Order Adaptive Cruise Control at Low Speed. IEEE Transactions on Control Systems Technology, 2014, 22, 2329-2336.	5.2	56
61	A method for the design of robust controllers ensuring the quadratic stability for switching systems. JVC/Journal of Vibration and Control, 2014, 20, 1085-1098.	2.6	13
62	Adaptive gain-order fractional control for network-based applications. Fractional Calculus and Applied Analysis, 2014, 17, 462-482.	2.2	20
63	A General Form for Reset Control Including Fractional Order Dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2028-2033.	0.4	16
64	Vibration Suppression Controller for a Flexible Beam on a Cart Using SMC. Advances in Intelligent Systems and Computing, 2014, , 127-139.	0.6	2
65	Fractional order human arm dynamics with variability analyses. Mechatronics, 2013, 23, 805-812.	3.3	37
66	Fractional order hybrid systems and their stability. , 2013, , .		0
67	Fractional-order reset control: Application to a servomotor. Mechatronics, 2013, 23, 781-788.	3.3	55
68	Stability of fractional order switching systems. Computers and Mathematics With Applications, 2013, 66, 585-596.	2.7	38
69	Fractional Network-Based Control for Vehicle Speed Adaptation via Vehicle-to-Infrastructure Communications. IEEE Transactions on Control Systems Technology, 2013, 21, 780-790.	5.2	17
70	Efficient control of a SmartWheel via Internet with compensation of variable delays. Mechatronics, 2013, 23, 821-827.	3.3	10
71	Basic properties and stability of fractional-order reset control systems. , 2013, , .		6
72	Fractional order identification of human arm dynamics: Preliminary results. , 2013, , .		2

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73	DEALING WITH FRACTIONAL DYNAMICS OF IP NETWORK DELAYS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250089.	1.7	6
74	EXPERIENCES ON AN INTERNET LINK CHARACTERIZATION AND NETWORKED CONTROL OF A SMART WHEEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1230015.	1.7	6
75	Effects of Introducing Fractional Dynamics in Hill's Model for Muscle Contraction. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1743-1748.	0.4	3
76	Comparing Fractional Order PI Controllers With Variable Gain and Gain-Order for the Networked Control of a Servomotor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 655-660.	0.4	5
77	Boolean-based fractional order SMC for switching systems: application to a DC-DC buck converter. Signal, Image and Video Processing, 2012, 6, 445-451.	2.7	20
78	CONTROLLER DESIGN FOR A STANCE-CONTROL KNEE-ANKLE-FOOT ORTHOSIS BASED ON OPTIMIZATION TECHNIQUES. , 2012, , .		1
79	Low speed control of an autonomous vehicle using a hybrid fractional order controller. , 2011, , .		11
80	Low Speed Control of an Autonomous Vehicle by Using a Fractional PI Controller. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 15025-15030.	0.4	14
81	Multivariable fractional order PID controller design via LMI approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13960-13965.	0.4	11
82	Fractional Gain Scheduled Controller for a Networked Smart Wheel: Experimental Results. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 15043-15048.	0.4	4
83	Improved fractional Kalman filter and its application to estimation over lossy networks. Signal Processing, 2011, 91, 542-552.	3.7	67
84	Remote output feedback stabilization for fractional-order systems via communication networks. , 2011, , .		4
85	Hybrid Modeling and Fractional Control of a SCKAFO Orthosis for Gait Assistance. , 2011, , .		2
86	Remote stabilization for fractional-order systems via communication networks. , 2010, , .		2
87	Controller for urban intersections based on hybrid automaton. , 2010, , .		2
88	Position and Velocity Control of a Servo by Using GPC of Arbitrary Real Order. , 2010, , 369-376.		1
89	GPC strategies for the lateral control of a networked AGV. , 2009, , .		6
90	Comparing Generalized Order PID Controllers for Networked Control Systems With Random Delays and Data Dropouts. , 2009, , .		1

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91	Fully Automated Tuning and Implementation of Fractional PID Controllers. , 2009, , .		4
92	Auto-tuning of fractional order PIÂ·DÂ· controllers using a PLC. , 2009, , .		8
93	Bounded control strategies for minimizing the effects of the communications network on the lateral control of an AGV. , 2008, , .		4
94	Effects of a communication network on the longitudinal and lateral control of an AGV. , 2008, , .		6