JosÃ© Ãngel Acosta

List of Publications by Year
in descending order

79 papers	1,463 citations	516710 16 h-index	395702 33 g-index
80 all docs	80 docs citations	80 times ranked	920 citing authors

#	Article	IF	Citations
1	Network Adapter for Sampled Linear Systems Under Asynchronous and Delayed Communications: Quadrotor Remote Speed Control Through Cellular Network. IEEE Transactions on Control Systems Technology, 2022, 30, 1736-1741.	5.2	1
2	Geometric control using the state-dependent Riccati equation: application to aerial-acrobatic maneuvers. International Journal of Control, 2022, 95, 1875-1887.	1.9	9
3	Gravity compensation and optimal control of actuated multibody system dynamics. IET Control Theory and Applications, 2022, 16, 79-93.	2.1	4
4	Aerodynamic reduced-order Volterra model of an ornithopter under high-amplitude flapping. Aerospace Science and Technology, 2022, 121, 107331.	4.8	13
5	A Lightweight Beak-Like Sensing System for Grasping Tasks of Flapping Aerial Robots. IEEE Robotics and Automation Letters, 2022, 7, 2313-2320.	5.1	2
6	Quaternion-based state-dependent differential Riccati equation for quadrotor drones: Regulation control problem in aerobatic flight. Robotica, 2022, 40, 3120-3135.	1.9	11
7	A PD-Type State-Dependent Riccati Equation With Iterative Learning Augmentation for Mechanical Systems. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 1499-1511.	13.1	10
8	A 79.7g Manipulator Prototype for E-Flap Robot: A Plucking-Leaf Application. IEEE Access, 2022, 10, 65300-65308.	4.2	5
9	An algebraic version of the active disturbance rejection control for second-order flat systems. International Journal of Control, 2021, 94, 215-222.	1.9	3
10	PI-Type Controllers and Î£â€“Î” Modulation for Saturated DC-DC Buck Power Converters. IEEE Access, 2021, 9, 20346-20357.	4.2	37
11	Design of the High-Payload Flapping Wing Robot E-Flap. IEEE Robotics and Automation Letters, 2021, 6, 3097-3104.	5.1	43
12	Soft-Landing of Multi-Rotor Drones using a Robust Nonlinear Control and Wind Modeling. , 2021, , .		3
13	Installation of Clip-Type Bird Flight Diverters on High-Voltage Power Lines with Aerial Manipulation Robot: Prototype and Testbed Experimentation. Applied Sciences (Switzerland), 2021, 11, 7427.	2.5	9
14	Control Aware of Limitations of Manipulators With Claw for Aerial Robots Imitating Bird's Skeleton. IEEE Robotics and Automation Letters, 2021, 6, 6426-6433.	5.1	11
15	A benchmark mechatronics platform to assess the inspection around pipes with variable pitch quadrotor for industrial sites. Mechatronics, 2021, 79, 102641.	3.3	12
16	Design and Manufacture of the Wing Folding Mechanism for a Bioinspired Ornithopter. , 2021, , .		2
17	Why fly blind? Event-based visual guidance for ornithopter robot flight. , 2021, , .		10
18	Design and comparison of tails for bird-scale flapping-wing robots. , 2021, , .		10

#	Article	IF	Citations
19	Cooperative Aerial Manipulation with Decentralized Adaptive Force-Consensus Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 97, 171-183.	3.4	23
20	Estimation and control of oscillators through short-range noisy proximity measurements. Automatica, 2020, 113, 108752.	5.0	12
21	A Bio-Inspired Manipulator with Claw Prototype for Winged Aerial Robots: Benchmark for Design and Control. Applied Sciences (Switzerland), 2020, 10, 6516.	2.5	13
22	Collision Avoidance of SDRE Controller using Artificial Potential Field Method: Application to Aerial Robotics. , 2020, , .		3
23	A descentralized approach for the aerial manipulator trajectory tracking. , 2020, , .		1
24	Effects of Unsteady Aerodynamics on Gliding Stability of a Bio-Inspired UAV. , 2020, , .		1
25	High-Level Modular Autopilot Solution for Fast Prototyping of Unmanned Aerial Systems. IEEE Access, 2020, 8, 223827-223836.	4.2	1
26	Adaptive Integral Inverse Kinematics Control for Lightweight Compliant Manipulators. IEEE Robotics and Automation Letters, 2020, 5, 3468-3474.	5.1	6
27	Accurate control of Aerial Manipulators outdoors. A reliable and self-coordinated nonlinear approach. Aerospace Science and Technology, 2020, 99, 105731.	4.8	21
28	Explicit Aerodynamic Model Characterization of a Multirotor Unmanned Aerial Vehicle in Quasi-Steady Flight. Journal of Computational and Nonlinear Dynamics, 2020, 15, .	1.2	3
29	Fully Coupled Six-DoF Nonlinear Suboptimal Control of a Quadrotor: Application to Variable-Pitch Rotor Design. Advances in Intelligent Systems and Computing, 2020, , 72-83.	0.6	4
30	Adaptive Nonlinear Control For Perching of a Bioinspired Ornithopter. , 2020, , .		13
31	Timescale separation via Rayleigh quotient in flexible wind turbines: a singularly perturbed approach. Nonlinear Dynamics, 2019, 97, 2723-2738.	5.2	2
32	Optimized Thrust Allocation of Variable-pitch Propellers Quadrotor Control: A Comparative Study on Flip Maneuver. , 2019, , .		7
33	Cooperative Aerial Load Transport with Attitude Stabilization. , 2019, , .		1
34	Command-Filtered Backstepping Redesign forÂAerial Manipulators Under Aerodynamic andÂOperational Disturbances. Advances in Intelligent Systems and Computing, 2018, , 817-828.	0.6	2
35	Cooperative Aerial Load Transport with Force Control. IFAC-PapersOnLine, 2018, 51, 38-43.	0.9	14
36	Force Control in Cooperative Aerial Manipulation. , 2018, , .		4

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37	Stabilisation of stateâ€andâ€input constrained nonlinear systems via diffeomorphisms: A Sontag's formula approach with an actual application. International Journal of Robust and Nonlinear Control, 2018, 28, 4032-4044.	3.7	7
38	Stability of active disturbance rejection control for uncertain systems: A Lyapunov perspective. International Journal of Robust and Nonlinear Control, 2017, 27, 4541-4553.	3.7	64
39	Relative-pose optimisation for robust and nonlinear control of unmanned aerial manipulators. , 2017, , .		2
40	Adaptive outputâ€feedback stabilisation of an uncertain secondâ€order linear systems. International Journal of Adaptive Control and Signal Processing, 2017, 31, 823-832.	4.1	8
41	A robust decentralised strategy for multi-task control of unmanned aerial systems. Application on underactuated aerial manipulator. , 2016, , .		12
42	Integral action in first-order Closed-Loop Inverse Kinematics. Application to aerial manipulators. , 2015, , .		16
43	Adaptive Control for Aircraft Longitudinal Dynamics with Thrust Saturation. Journal of Guidance, Control, and Dynamics, 2015, 38, 651-661.	2.8	38
44	Singular Perturbation Control of the Lateral-Directional Flight Dynamics of an UAV. IFAC-PapersOnLine, 2015, 48, 120-125.	0.9	9
45	Robust control of underactuated Aerial Manipulators via IDA-PBC. , 2014, , .		37
46	Constrained stabilization of a cart on an asymmetric-beam system through IDA-PBC. , 2014, , .		1
47	Nonlinear state-constrained control. Application to the dynamic positioning of ships. , 2014, , .		6
48	Diffeomorphism-based control of nonlinear systems subject to state constraints with actual applications. , 2014, , .		14
49	Control of a multirotor outdoor aerial manipulator. , 2014, , .		136
50	A nonlinear hybrid controller for swinging-up and stabilizing the Furuta pendulum. Control Engineering Practice, 2013, 21, 989-993.	5.5	33
51	Constructive immersion and invariance stabilization for a class of underactuated mechanical systems. Automatica, 2013, 49, 1442-1448.	5.0	59
52	On Singular Perturbations of Flexible and Variable-Speed Wind Turbines. International Journal of Aerospace Engineering, 2012, 2012, 1-12.	0.9	3
53	Discussion on: â€œAn Immersion and Invariance Algorithm for a Differential Algebraic Systemâ€. European Journal of Control, 2012, 18, 161.	2.6	0
54	Control of the longitudinal flight dynamics of an UAV using adaptive backstepping. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1892-1897.	0.4	35

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55	Output-feedback control of the longitudinal flight dynamics using adaptative backstepping. , 2011, , .		4
56	Constructive Immersion and Invariance Stabilization for a Class of Underactuated Mechanical Systems *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 108-113.	0.4	3
57	Furuta's Pendulum: AConservativeNonlinear Model for Theory and Practise. Mathematical Problems in Engineering, 2010, 2010, 1-29.	1.1	47
58	Non-linear sliding mode surfaces for a class of underactuated mechanical systems. IET Control Theory and Applications, 2010, 4, 2195-2204.	2.1	25
59	On the PDEs arising in IDA-PBC. , 2009, , .		12
60	A new strict Lyapunov function for fully-actuated mechanical systems controlled by IDA-PBC. , 2009, , .		4
61	A Nonlinear Strategy to Control Unstable Underactuated Mechanical Systems with Underactuation > 1. Applications to Control Augmentations. Open Automation and Control Systems Journal, 2009, 2, 13-20.	0.9	3
62	Constructive nonlinear sliding mode surfaces for a class of underactuated systems with parametric uncertainties. , 2009, , .		0
63	A constructive solution for stabilization via immersion and invariance: The cart and pendulum system. Automatica, 2008, 44, 2352-2357.	5.0	63
64	A controller for swinging-up and stabilizing the inverted pendulum. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 7695-7699.	0.4	3
65	Constructive Invariant Manifolds to Stabilize Pendulumâ€“like systems Via Immersion and Invariance. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 4815-4819.	0.4	0
66	On Singular Perturbations of Unstable Underactuated Mechanical Systems With Underactuation Degree â‰¥ 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 5998-6003.	0.4	2
67	Linealizacion por realimentacion constructiva de sistemas mecanicos con grado de subactuacion 1 inestables con friccion. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2007, 4, 70-79.	1.0	3
68	Total Energy Shaping Control of Mechanical Systems: Simplifying the Matching Equations Via Coordinate Changes. IEEE Transactions on Automatic Control, 2007, 52, 1093-1099.	5.7	100
69	Constructive feedback linearization of mechanical systems with friction and underactuation degree one. , 2007, , .		5
70	Total Energy Shaping Control of Mechanical Systems: Simplifying the Matching Equations Via Coordinate Changes. , 2007, , 147-156.		1
71	Interconnection and damping assignment passivity-based control of mechanical systems with underactuation degree one. IEEE Transactions on Automatic Control, 2005, 50, 1936-1955.	5.7	264
72	Position-feedback stabilization of mechanical systems with underactuation degree one. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 985-990.	0.4	3

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73	Passivation of underactuated systems with physical damping. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 955-960.	0.4	8
74	Kinetic energy shaping in the inverted pendulum. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1063-1067.	0.4	5
75	A new swing-up law for the Furuta pendulum. International Journal of Control, 2003, 76, 836-844.	1.9	50
76	STABILIZATION OF OSCILLATIONS IN THE INVERTED PENDULUM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 79-84.	0.4	26
77	Swinging up the Furuta pendulum by the speed gradient method. , 2001, , .		5
78	A New SG Law for Swinging the Furuta Pendulum Up. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 795-800.	0.4	3
79	Constructive feedback linearization of underactuated mechanical systems with 2-DOF. , 0, , .		18