Rita Cunha

List of Publications by Year in descending order

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106 papers	1,965 citations	331538 21 h-index	315616 38 g-index
106 all docs	106 docs citations	106 times ranked	1432 citing authors

#	Article	IF	Citations
1	A nonlinear quadrotor trajectory tracking controller with disturbance rejection. Control Engineering Practice, 2014, 26, 1-10.	3.2	136
2	Landing of a Quadrotor on a Moving Target Using Dynamic Image-Based Visual Servo Control. IEEE Transactions on Robotics, 2016, 32, 1524-1535.	7.3	129
3	A Globally Stabilizing Path Following Controller for Rotorcraft With Wind Disturbance Rejection. IEEE Transactions on Control Systems Technology, 2015, 23, 708-714.	3.2	106
4	A nonlinear position and attitude observer on SE(3) using landmark measurements. Systems and Control Letters, 2010, 59, 155-166.	1.3	99
5	Nonlinear Backstepping Control of a Quadrotor-Slung Load System. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2304-2315.	3.7	87
6	A leader-following trajectory generator with application to quadrotor formation flight. Robotics and Autonomous Systems, 2014, 62, 1597-1609.	3.0	76
7	Trajectory Tracking Nonlinear Model Predictive Control for Autonomous Surface Craft. IEEE Transactions on Control Systems Technology, 2014, 22, 2160-2175.	3.2	75
8	Robust global trajectory tracking for a class of underactuated vehicles. Automatica, 2015, 58, 90-98.	3.0	60
9	A Bottom-Following Preview Controller for Autonomous Underwater Vehicles. IEEE Transactions on Control Systems Technology, 2009, 17, 257-266.	3.2	54
10	Robust Landing and Sliding Maneuver Hybrid Controller for a Quadrotor Vehicle. IEEE Transactions on Control Systems Technology, 2016, 24, 400-412.	3.2	49
11	Robust Take-Off for a Quadrotor Vehicle. IEEE Transactions on Robotics, 2012, 28, 734-742.	7.3	47
12	A trajectory tracking control law for a quadrotor with slung load. Automatica, 2019, 106, 384-389.	3.0	46
13	Robust Motion Control of an Underactuated Hovercraft. IEEE Transactions on Control Systems Technology, 2019, 27, 2195-2208.	3.2	40
14	Adaptive Backstepping Control of a Quadcopter With Uncertain Vehicle Mass, Moment of Inertia, and Disturbances. IEEE Transactions on Industrial Electronics, 2022, 69, 549-559.	5.2	37
15	Landmark based nonlinear observer for rigid body attitude and position estimation. , 2007, , .		36
16	Cooperative Autonomous Marine Vehicle motion control in the scope of the EU GREX Project: Theory and Practice. , 2009, , .		34
17	Affine Parameter-Dependent Preview Control for Rotorcraft Terrain Following Flight. Journal of Guidance, Control, and Dynamics, 2006, 29, 1350-1359.	1.6	32
18	Output-feedback control for stabilization on. Systems and Control Letters, 2008, 57, 1013-1022.	1.3	31

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19	Dynamic Modeling and Stability Analysis of Model-Scale Helicopters with Bell-Hiller Stabilizing Bar. , 2003, , .		29
20	Nonlinear Image-Based Visual Servo Controller for the Flare Maneuver of Fixed-Wing Aircraft Using Optical Flow. IEEE Transactions on Control Systems Technology, 2015, 23, 570-583.	3.2	29
21	Optimal trajectory planning for cinematography with multiple Unmanned Aerial Vehicles. Robotics and Autonomous Systems, 2021, 140, 103778.	3.0	26
22	Cooperative Control of Multiple Marine Vehicles Theoretical Challenges and Practical Issues. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 412-417.	0.4	25
23	A Path-Following Preview Controller for Autonomous Air Vehicles. , 2006, , .		24
24	Robust take-off and landing for a quadrotor vehicle. , 2010, , .		23
25	A Nonlinear Attitude Observer Based on Active Vision and Inertial Measurements. IEEE Transactions on Robotics, 2011, 27, 664-677.	7.3	23
26	Autolanding Controller for a Fixed Wing Unmanned Air Vehicle. , 2007, , .		21
27	Rotorcraft path following control for extended flight envelope coverage. , 2009, , .		21
28	Autonomous Execution of Cinematographic Shots With Multiple Drones. IEEE Access, 2020, 8, 201300-201316.	2.6	21
29	Path-Following Control for Coordinated Turn Aircraft Maneuvers. , 2007, , .		20
30	Global trajectory tracking for a class of underactuated vehicles. , 2013, , .		19
31	Global Saturated Tracking Control of a Quadcopter With Experimental Validation. , 2021, 5, 169-174.		19
32	Geometric finite-time inner-outer loop trajectory tracking control strategy for quadrotor slung-load transportation. Nonlinear Dynamics, 2022, 107, 2291-2308.	2.7	18
33	LiDAR-Based Control of Autonomous Rotorcraft for the Inspection of Pierlike Structures. IEEE Transactions on Control Systems Technology, 2018, 26, 1430-1438.	3.2	17
34	Formation control of a leaderâ€“follower structure in three dimensional space using bearing measurements. Automatica, 2021, 128, 109567.	3.0	17
35	Gossip average consensus in a Byzantine environment using stochastic Set-Valued Observers. , 2013, , .		16
36	Nonlinear trajectory tracking control of a quadrotor vehicle. , 2009, , .		15

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37	Nonlinear IBVS controller for the flare maneuver of fixed-wing aircraft using optical flow. , 2010, , .		14
38	A nonlinear quadrotor trajectory tracking controller with disturbance rejection. , 2014, , .		14
39	Quadrotor trajectory generation and tracking for aggressive maneuvers with attitude constraints. IFAC-PapersOnLine, 2019, 52, 55-60.	0.5	14
40	Almost global stabilization of fully-actuated rigid bodies. Systems and Control Letters, 2009, 58, 639-645.	1.3	13
41	Vision-based control for rigid body stabilization. Automatica, 2011, 47, 1020-1027.	3.0	13
42	Hybrid Control for Robust and Global Tracking on Smooth Manifolds. IEEE Transactions on Automatic Control, 2020, 65, 1870-1885.	3.6	13
43	Landing on a moving target using image-based visual servo control. , 2014, , .		12
44	Optimal Trajectory Planning for Autonomous Drone Cinematography. , 2019, , .		12
45	On the design of multiâ€rate tracking controllers: Application to rotorcraft guidance and control. International Journal of Robust and Nonlinear Control, 2010, 20, 1879-1902.	2.1	11
46	Leader following trajectory planning: A trailer-like approach. Automatica, 2017, 75, 77-87.	3.0	11
47	A Multidrone Approach for Autonomous Cinematography Planning. Advances in Intelligent Systems and Computing, 2018, , 337-349.	0.5	11
48	Quadrotor going through a window and landing: An image-based visual servo control approach. Control Engineering Practice, 2021, 112, 104827.	3.2	11
49	Aggressive maneuvers for a quadrotor-slung-load system through fast trajectory generation and tracking. Autonomous Robots, 2022, 46, 499-513.	3.2	11
50	Output-feedback control for almost global stabilization of fully-actuated rigid bodies. , 2008, , .		10
51	A globally asymptotically stabilizing trajectory tracking controller for fully actuated rigid bodies using landmarkâ€based information. International Journal of Robust and Nonlinear Control, 2015, 25, 3617-3640.	2.1	10
52	Relaxed bearing rigidity and bearing formation control under persistence of excitation. Automatica, 2022, 141, 110289.	3.0	10
53	Real-time Trajectory Generation for Multiple Drones using BÃ©zier Curves. IFAC-PapersOnLine, 2020, 53, 9276-9281.	0.5	9
54	Adaptive control with unknown mass estimation for a quadrotor-slung-load system. ISA Transactions, 2023, 133, 412-423.	3.1	9

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55	Visual servo aircraft control for tracking parallel curves. , 2012, , .		8
56	A novel leader-following strategy applied to formations of quadrotors. , 2013, , .		8
57	A multiple-UAV architecture for autonomous media production. Multimedia Tools and Applications, 2023, 82, 1905-1934.	2.6	8
58	A 3D PATH-FOLLOWING VELOCITY-TRACKING CONTROLLER FOR AUTONOMOUS VEHICLES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 73-78.	0.4	7
59	Underwater vehicle technology in the European Research Project VENUS. Underwater Technology, 2009, 28, 175-185.	0.3	7
60	Nonlinear Attitude Observer Based on Range and Inertial Measurements. IEEE Transactions on Control Systems Technology, 2013, 21, 1889-1897.	3.2	7
61	Experimental validation of a globally stabilizing feedback controller for a quadrotor aircraft with wind disturbance rejection. , 2013, , .		7
62	A robust landing and sliding maneuver controller for a quadrotor vehicle on a sloped incline. , 2014, , .		7
63	A 3-D Trailer Approach to Leader-Following Formation Control. IEEE Transactions on Control Systems Technology, 2020, 28, 2292-2308.	3.2	7
64	Cooperative Path Following Control of Multiple Quadcopters With Unknown External Disturbances. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 667-679.	5.9	7
65	A Distributed Algorithm for Real-Time Multi-Drone Collision-Free Trajectory Replanning. Sensors, 2022, 22, 1855.	2.1	7
66	Vision-based control for rigid body stabilization. , 2007, , .		6
67	Bearing-only formation control under persistence of excitation. , 2020, , .		6
68	Output-feedback control for stabilization on SE(3). , 2006, , .		5
69	A Bottom-Following Preview Controller for Autonomous Underwater Vehicles. , 2006, , .		5
70	L<inf>1</inf> adaptive control for autonomous rotorcraft. , 2009, , .		5
71	Vision-based quadrotor stabilization using a pan and tilt camera. , 2010, , .		5
72	Terrain Avoidance Nonlinear Model Predictive Control for Autonomous Rotorcraft. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 68, 69-85.	2.0	5

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73	Hybrid feedback for global asymptotic stabilization on a compact manifold. , 2017, , .		5
74	Aircraft Landing Using Dynamic Two-Dimensional Image-Based Guidance Control. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 2104-2117.	2.6	5
75	Integrated Visual Servoing Solution to Quadrotor Stabilization and Attitude Estimation Using a Pan and Tilt Camera. IEEE Transactions on Control Systems Technology, 2019, 27, 14-29.	3.2	5
76	On the Design of Multi-Rate Tracking Controllers: An Application to Rotorcraft Guidance and Control. , 2007, , .		4
77	A dynamic estimator on SE(3) using range-only measurements. , 2008, , .		4
78	A trajectory tracking LQR controller for a quadrotor: Design and experimental evaluation. , 2015, , .		4
79	Global Practical Tracking for a Hovercraft with Unmeasured Linear Velocity and Disturbances. IFAC-PapersOnLine, 2020, 53, 8959-8964.	0.5	4
80	Distributed Formation Control of Double-Integrator Vehicles with Disturbance Rejection. IFAC-PapersOnLine, 2020, 53, 3118-3123.	0.5	4
81	Some properties of time-varying bearing formation. European Journal of Control, 2022, 68, 100699.	1.6	4
82	Integrated solution to quadrotor stabilization and attitude estimation using a pan and tilt camera. , 2012, , .		3
83	Homing on a moving dock for a quadrotor vehicle. , 2015, , .		3
84	A nonlinear trajectory tracking controller for helicopters: Design and experimental evaluation. , 2015, , .		3
85	Cooperative Motion Planning with Time, Energy and Active Navigation Constraints. , 2018, , .		3
86	Path Following Controller Design for an Underactuated Hovercraft with External Disturbances. , 2019, , .		3
87	Trajectory planning and control for drone replacement for multidrone cinematography. IFAC-PapersOnLine, 2019, 52, 334-339.	0.5	3
88	Multi-vehicle Cooperative Control for Load Transportation. IFAC-PapersOnLine, 2019, 52, 358-363.	0.5	3
89	Improved Maneuverability for Multirotor Aerial Vehicles using Globally Stabilizing Feedbacks. , 2020, , .		3
90	A Control Algorithm for Early Wildfire Detection Using Aerial Sensor Networks: Modeling and Simulation. Drones, 2022, 6, 44.	2.7	3

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91	On the design of rotorcraft landing controllers. , 2008, , .		2
92	Experimental validation of a nonlinear quadrotor controller with wind disturbance rejection. , 2013, , .		2
93	Planning Parcel Relay Manoeuvres for Quadrotors. , 2021, , .		2
94	Trajectory Generation for Drones in Confined Spaces Using an Ellipsoid Model of the Body. , 2022, 6, 1022-1027.		2
95	Terrain Following Controller for Affine Parameter-Dependent Systems: An Application to Model-Scale Helicopters. , 2005, , .		1
96	Nonlinear attitude estimation using active vision and inertial measurements. , 2009, , .		1
97	An Experimentally Validated Attitude Observer Based on Range and Inertial Measurements*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13807-13812.	0.4	1
98	A landmark-based controller for global asymptotic stabilization on SE(3). , 2012, , .		1
99	A hybrid feedback controller for robust global trajectory tracking of quadrotor-like vehicles with minimized attitude error. , 2014, , .		1
100	Trailer-like leader following trajectory planning. , 2014, , .		1
101	Three dimensional trajectory planner for real time leader following. , 2014, , .		1
102	LiDAR-Based Control of Autonomous Rotorcraft for Inspection of Pole-Shaped Structures. Advances in Intelligent Systems and Computing, 2016, , 609-621.	0.5	1
103	Chemical Spill Encircling Using a Quadrotor and Autonomous Surface Vehicles: A Distributed Cooperative Approach. Sensors, 2022, 22, 2178.	2.1	1
104	Going through a window and landing a quadrotor using optical flow. , 2018, , .		0
105	Trajectory Tracking Control of an Underactuated Autonomous Surface Craft in the Presence of Environmental Disturbances. , 2019, , .		0
106	Sensor-Based 3-D Pose Estimation and Control of Rotary-Wing UAVs Using a 2-D LiDAR. Advances in Intelligent Systems and Computing, 2018, , 718-729.	0.5	0