

Kamesh Subbarao

List of Publications by Year in descending order

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102
papers

2,107
citations

394286

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104
all docs

104
docs citations

104
times ranked

1416
citing authors

#	ARTICLE	IF	CITATIONS
1	Backstepping Approach for Controlling a Quadrotor Using Lagrange Form Dynamics. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 56, 127-151.	2.0	315
2	Dynamic inversion with zero-dynamics stabilisation for quadrotor control. IET Control Theory and Applications, 2009, 3, 303-314.	1.2	312
3	Adaptive Output Feedback Control for Spacecraft Rendezvous and Docking Under Measurement Uncertainty. Journal of Guidance, Control, and Dynamics, 2006, 29, 892-902.	1.6	258
4	Nonlinear Control of Motion Synchronization for Satellite Proximity Operations. Journal of Guidance, Control, and Dynamics, 2008, 31, 1284-1294.	1.6	131
5	Structured H-Infinity Command and Control-Loop Design for Unmanned Helicopters. Journal of Guidance, Control, and Dynamics, 2008, 31, 1093-1102.	1.6	118
6	H-Infinity Static Output-feedback Control for Rotorcraft. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 54, 629-646.	2.0	92
7	Modeling of Flight Dynamics of Morphing Wing Aircraft. Journal of Aircraft, 2011, 48, 391-402.	1.7	64
8	Nonlinear Model Predictive Control for Unmanned Aerial Vehicles. Aerospace, 2017, 4, 31.	1.1	47
9	Hybrid Genetic Algorithm Collocation Method for Trajectory Optimization. Journal of Guidance, Control, and Dynamics, 2009, 32, 1396-1403.	1.6	46
10	Differentiator-Free Nonlinear Proportional-Integral Controllers for Rigid-Body Attitude Stabilization. Journal of Guidance, Control, and Dynamics, 2004, 27, 1092-1096.	1.6	45
11	Distributed backstepping based control of multiple UAV formation flight subject to time delays. IET Control Theory and Applications, 2020, 14, 1628-1638.	1.2	39
12	Nonlinear PID-Like Controllers for Rigid-Body Attitude Stabilization. Journal of the Astronautical Sciences, 2004, 52, 61-74.	0.8	34
13	A novel parameter projection mechanism for smooth and stable adaptive control. Systems and Control Letters, 2005, 54, 43-51.	1.3	29
14	Direction-Dependent Learning Approach for Radial Basis Function Networks. IEEE Transactions on Neural Networks, 2007, 18, 203-222.	4.8	27
15	Nonlinear control of unmanned aerial vehicles with cable suspended payloads. Aerospace Science and Technology, 2019, 93, 105299.	2.5	27
16	State observer for linear systems with piece-wise constant output delays. IET Control Theory and Applications, 2009, 3, 1017-1022.	1.2	26
17	Modeling of Dynamic Loading of Morphing-Wing Aircraft. Journal of Aircraft, 2011, 48, 424-435.	1.7	24
18	Experimental Verification of Linear and Adaptive Control Techniques for a Two Degrees-of-Freedom Helicopter. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	22

#	ARTICLE	IF	CITATIONS
19	Nonlinear adaptive filtering in terrain-referenced navigation. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 3461-3469.	2.6	21
20	Dynamic inversion of quadrotor with zero-dynamics stabilization. , 2008, , .		19
21	Autonomous Formation Flight Control System Using In-Flight Sweet-Spot Estimation. Journal of Guidance, Control, and Dynamics, 2015, 38, 1083-1096.	1.6	19
22	Realizing a Humanoid Neck with Serial Chain Four-bar Mechanism. Journal of Intelligent Material Systems and Structures, 2010, 21, 1169-1191.	1.4	18
23	Dynamic Neural Network-Based Robust Backstepping Control approach for Quadrotors. , 2008, , .		17
24	A state observer for LTI systems with delayed outputs: Time-varying delay. , 2008, , .		17
25	Nonlinear 3-D trajectory guidance for unmanned aerial vehicles. , 2010, , .		15
26	Implementation of an adaptive, model free, learning controller on the Atlas robot. , 2014, , .		15
27	Guidance, Navigation and Control of Unmanned Airships under Time-Varying Wind for Extended Surveillance. Aerospace, 2016, 3, 8.	1.1	15
28	Computational Adaptive Optimal Control of Spacecraft Attitude Dynamics with Inertia-Matrix Identification. Journal of Guidance, Control, and Dynamics, 2017, 40, 1258-1262.	1.6	15
29	On-Board Wind Speed Estimation for UAVs. , 2011, , .		14
30	Optimal game theoretic solution of the pursuit-€ evasion intercept problem using on-€ policy reinforcement learning. International Journal of Robust and Nonlinear Control, 2021, 31, 7886-7903.	2.1	14
31	Backstepping based nested multi-loop control laws for a quadrotor. , 2010, , .		12
32	Nonlinear Guidance and Control Laws for Three-Dimensional Target Tracking Applied to Unmanned Aerial Vehicles. Journal of Aerospace Engineering, 2014, 27, 604-610.	0.8	11
33	Target Tracking in 3-D Using Estimation Based Nonlinear Control Laws for UAVs. Aerospace, 2016, 3, 5.	1.1	11
34	Autonomous Carrier Landing System for the A/V-8B Harrier like UAV. IFAC-PapersOnLine, 2016, 49, 290-295.	0.5	11
35	Extremum seeking control with attenuated steady-state oscillations. Automatica, 2021, 125, 109432.	3.0	10
36	Generalized Polynomial Chaos Expansion Approach for Uncertainty Quantification in Small Satellite Orbital Debris Problems. Journal of the Astronautical Sciences, 2020, 67, 225-253.	0.8	9

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37	Shape control of flexible structure using potential field method. , 2008, , .		8
38	Minimum control effortâ€‘based path planning and nonlinear guidance for autonomous mobile robots. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881263.	1.3	8
39	Uncertainty Quantification Using Generalized Polynomial Chaos Expansion for Nonlinear Dynamical Systems With Mixed State and Parameter Uncertainties. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	8
40	H-Infinity Static Output-Feedback Control for Rotorcraft. , 2006, , .		7
41	Evaluation of extant computer vision techniques for detecting intruder sUAS. , 2017, , .		7
42	Robust Control Strategy for Quadcopters using Sliding Mode Control and Model Predictive Control. , 2020, , .		7
43	Structured Model Reference Adaptive Control for a Class of Nonlinear Systems. Journal of Guidance, Control, and Dynamics, 2003, 26, 551-557.	1.6	6
44	Stable adaptive reference trajectory modification for saturated control applications. , 2008, , .		6
45	Formation Flight Control System for In-Flight Sweet Spot Estimation. , 2013, , .		6
46	A Dynamic Neural Network with Feedback for Trajectory Generation. IFAC-PapersOnLine, 2016, 49, 367-372.	0.5	6
47	Reinforcement learning based computational adaptive optimal control and system identification for linear systems. Annual Reviews in Control, 2016, 42, 319-331.	4.4	6
48	Sensitivity Analysis of Cooperating Multi-agent Systems with Uncertain Connection Weights. , 2019, , .		6
49	On the Phase Margin of Networked Dynamical Systems and Fabricated Attacks of an Intruder. , 2020, , .		6
50	Nonlinear Model Predictive Control and Collision-Cone-Based Missile Guidance Algorithm. Journal of Guidance, Control, and Dynamics, 2021, 44, 1481-1497.	1.6	6
51	Trajectory design using collocation and genetic algorithms: Aircraft turning maneuver. , 2008, , .		5
52	Estimation based cooperative guidance controller for 3D target tracking with multiple UAVs. , 2012, , .		5
53	Study of time-dependent queuing models of the national airspace system. Computers and Industrial Engineering, 2018, 117, 108-120.	3.4	5
54	A neuro-dynamic walking engine for humanoid robots. Robotics and Autonomous Systems, 2018, 110, 124-138.	3.0	5

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55	Path Planning to a Reachable State Using Minimum Control Effort Based Navigation Functions. Journal of the Astronautical Sciences, 2019, 66, 554-581.	0.8	5
56	Set-Membership Filter for Discrete-Time Nonlinear Systems Using State-Dependent Coefficient Parameterization. IEEE Transactions on Automatic Control, 2022, 67, 894-901.	3.6	5
57	Sensor Placement With Optimal Precision for Temperature Estimation of Battery Systems. , 2022, 6, 1082-1087.		5
58	A constrained dynamical systems approach for attitude consensus of multiple rigid bodies. , 2010, , .		4
59	Cooperative Control of Swarms of Unmanned Aerial Vehicles. , 2011, , .		4
60	Model reference adaptive control of constrained cooperative manipulators. , 0, , .		3
61	A Sensor Calibration Methodology for Evidence Theoretic Unmanned Ground Vehicle Localization. , 2007, , .		3
62	3D target tracking by UAVs subject to measurement uncertainties. , 2011, , .		3
63	Aspects of Intuitive Control: Stabilize, Optimize, and Identify. , 2015, , .		3
64	â€œInverse Crimeâ€™ and Model Integrity in Lightcurve Inversion applied to unresolved Space Object Identification. Journal of the Astronautical Sciences, 2017, 64, 399-413.	0.8	3
65	Semi-analytical range and endurance computation of battery-powered multi-copter unmanned aerial systems under steady wind conditions. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 5282-5294.	0.7	3
66	Nested Robust Controller Design for Interconnected Linear Parameter Varying Aerial Vehicles. Journal of Guidance, Control, and Dynamics, 2021, 44, 1454-1468.	1.6	3
67	Fault Isolation Using Extrinsic Curvature For Multi-Input-Multi-Output Systems With Nonlinear Fault Models. Proceedings of the American Control Conference, 2007, , .	0.0	2
68	Autonomous vertical landing on a marine vessel. , 2014, , .		2
69	Nonlinear Model Predictive Control Applied to Trajectory Tracking for Unmanned Aerial Vehicles. , 2015, , .		2
70	Computational adaptive optimal control of spacecraft attitude dynamics with inertia matrix identification. , 2016, , .		2
71	Sensitivity Analysis of the Factors Affecting Force Generation by Wing Flapping Motion. , 2013, , .		2
72	Momentum Preserving Simulation of Cooperative Multirotors With Flexible-Cable Suspended Payload. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2022, 144, .	0.9	2

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73	Optimal Aggressive Constrained Trajectory Synthesis and Control for Multi-Copters. Aerospace, 2022, 9, 281.	1.1	2
74	A novel trajectory tracking methodology using structured adaptive model inversion for uninhabited aerial vehicles. , 2000, , .		1
75	Mathematical Modeling for Modal Computations Concerning a Morphable Wing. Journal of Aircraft, 2006, 43, 849-853.	1.7	1
76	Â¿-Filter: An Evidence Theoretic Approach to Unmanned Ground Vehicle Localization. , 2007, , .		1
77	Extrinsic curvature-based fault isolation for multi-inputâ€”multi-output systems with non-linear fault models. Transactions of the Institute of Measurement and Control, 2009, 31, 259-274.	1.1	1
78	Stable Reference Trajectory Modification for Handling Actuator Saturation in Control Systems. , 2011, , .		1
79	Guidance and Control of a Mobile Robot via Numerical Navigation Functions and Backstepping for Planetary Exploration Missions. , 2016, , .		1
80	Augmenting Wireless Time-of-Arrival Positioning with Terrain Elevation Measurements for Navigation. Journal of Guidance, Control, and Dynamics, 2017, 40, 1726-1738.	1.6	1
81	Mathematical Modeling and Control of an Unmanned Aerial System with a Cable Suspended Payload. , 2018, , .		1
82	Range and Endurance Characterization of a Quadcopter subject to Steady Wind. , 2018, , .		1
83	Observability and sensitivity analysis of lightcurve measurement models for use in space situational awareness. Inverse Problems in Science and Engineering, 2019, 27, 1399-1424.	1.2	1
84	Extremum Seeking and Adaptive Sampling Approaches for Plume Source Estimation using Unmanned Aerial Vehicles. , 2019, , .		1
85	A Robust Controller for Transition between Hover and Forward Flight for Hybrid Fixed Wing - Multicopters. , 2020, , .		1
86	Generalized Polynomial Chaos Expansion-based Stochastic Linear Quadratic Regulator for Multi-agent Systems. , 2021, , .		1
87	Fault Isolation Using Extrinsic Curvature of Nonlinear Fault Models. , 2006, , .		0
88	Real-time object-based image registration using improved MRAN. , 2007, , .		0
89	Nonlinear Guidance and Consensus for Unmanned Vehicles with Time Varying Connection Topologies. , 2011, , .		0
90	Optimal Control of an Unmanned Lighter-Than-Air Vehicle Through Way-Point Navigation. , 2012, , .		0

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91	Implementation and Testing of Adaptive Augmentation Techniques on a 2-DOF Helicopter. , 2013, , .		0
92	Nonlinear Dynamics of Flapping Wing MAV Using Cycle-Averaged Force Coeffi[#14#]cients. , 2014, , .		0
93	Nonlinear adaptive filtering in terrain-referenced navigation. , 2015, , .		0
94	Nonlinear Guidance Laws for Trajectory Tracking over a Mobile Communication Network applied to Unmanned Ground Vehicles. , 2018, , .		0
95	Error growth of target states utilizing a swarm of agents in GPS denied area. , 2018, , .		0
96	Set-Membership Filtering-Based Leaderâ€“Follower Synchronization of Discrete-Time Linear Multi-Agent Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	0.9	0
97	Generalized Polynomial Chaos-based Ensemble Kalman Filtering for Orbit Estimation. , 2021, , .		0
98	On the Application of Extended Kalman and Continuous Discrete Extended Kalman Filter for a HIL Magnetic Levitation Device. , 2007, , .		0
99	Force Production by Wing Flapping: The Role of Stroke Angle of Attack and Local Reynolds Number. , 2015, , .		0
100	A flight mechanics-based justification of the unique range of Strouhal numbers for avian cruising flight. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2021, 235, 1488-1506.	0.7	0
101	Robust Stability Margin of Continuous-Time Cooperative Unmanned Systems. Journal of Guidance, Control, and Dynamics, 2022, 45, 409-423.	1.6	0
102	Corrections to â€œSet-Membership Filter for Discrete-Time Nonlinear Systems Using State-Dependent Coefficient Parameterizationâ€•[Feb 22 894-901]. IEEE Transactions on Automatic Control, 2022, 67, 4386-4386.	3.6	0