

Shankar Sastry

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

7,192
citations

201674

27
h-index

197818

49
g-index

93
all docs

93
docs citations

93
times ranked

4853
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized principal component analysis (GPCA). IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005, 27, 1945-1959.	13.9	752
2	Nonlinear control design for slightly non-minimum phase systems: Application to V/STOL aircraft. Automatica, 1992, 28, 665-679.	5.0	583
3	Feedback linearization vs. adaptive sliding mode control for a quadrotor helicopter. International Journal of Control, Automation and Systems, 2009, 7, 419-428.	2.7	554
4	Nonlinear Systems. Interdisciplinary Applied Mathematics, 1999, , .	0.3	549
5	Controllers for reachability specifications for hybrid systems. Automatica, 1999, 35, 349-370.	5.0	506
6	On the regularization of Zeno hybrid automata. Systems and Control Letters, 1999, 38, 141-150.	2.3	436
7	Probabilistic reachability and safety for controlled discrete time stochastic hybrid systems. Automatica, 2008, 44, 2724-2734.	5.0	332
8	Geometric theory of nonlocal two-qubit operations. Physical Review A, 2003, 67, .	2.5	292
9	A Taxonomy of Cyber Attacks on SCADA Systems. , 2011, , .		285
10	Planning for Autonomous Cars that Leverage Effects on Human Actions. , 0, , .		205
11	LANDING AN UNMANNED AIR VEHICLE: VISION BASED MOTION ESTIMATION AND NONLINEAR CONTROL. Asian Journal of Control, 1999, 1, 128-145.	3.0	200
12	O-Minimal Hybrid Systems. Mathematics of Control, Signals, and Systems, 2000, 13, 1-21.	2.3	198
13	Zeno hybrid systems. International Journal of Robust and Nonlinear Control, 2001, 11, 435-451.	3.7	192
14	Dynamic control of redundant manipulators. Journal of Field Robotics, 1989, 6, 133-148.	0.7	184
15	Indirect techniques for adaptive input-output linearization of non-linear systems. International Journal of Control, 1991, 53, 193-222.	1.9	160
16	Optimal Coordinated Maneuvers for Three-Dimensional Aircraft Conflict Resolution. Journal of Guidance, Control, and Dynamics, 2002, 25, 888-900.	2.8	120
17	Two-View Multibody Structure from Motion. International Journal of Computer Vision, 2006, 68, 7-25.	15.6	119
18	Tracking and Coordination of Multiple Agents Using Sensor Networks: System Design, Algorithms and Experiments. Proceedings of the IEEE, 2007, 95, 234-254.	21.3	113

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19	Optimization Criteria and Geometric Algorithms for Motion and Structure Estimation. International Journal of Computer Vision, 2001, 44, 219-249.	15.6	109
20	Rethinking security properties, threat models, and the design space in sensor networks: A case study in SCADA systems. Ad Hoc Networks, 2009, 7, 1434-1447.	5.5	99
21	Time synchronization attacks in sensor networks. , 2005, , .		81
22	Optimal linear LQG control over lossy networks without packet acknowledgment. Asian Journal of Control, 2008, 10, 3-13.	3.0	72
23	Linear Differential Algorithm for Motion Recovery: A Geometric Approach. International Journal of Computer Vision, 2000, 36, 71-89.	15.6	61
24	Dynamical Systems Revisited: Hybrid Systems with Zeno Executions. Lecture Notes in Computer Science, 2000, , 451-464.	1.3	48
25	Safe sequential path planning of multi-vehicle systems via double-obstacle Hamilton-Jacobi-Isaacs variational inequality. , 2015, , .		44
26	Transactional Confidentiality in Sensor Networks. IEEE Security and Privacy, 2008, 6, 28-35.	1.2	41
27	An Evasive Maneuvering Algorithm for UAVs in See-and-Avoid Situations. Proceedings of the American Control Conference, 2007, , .	0.0	40
28	Feedback-Coordinated Ramp Control of Consecutive On-Ramps Using Distributed Modeling and Godunov-Based Satisfiable Allocation. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 2384-2392.	8.0	39
29	Optimal quantum circuit synthesis from controlled-unitary gates. Physical Review A, 2004, 69, .	2.5	38
30	The VIKING project: An initiative on resilient control of power networks. , 2009, , .		38
31	Towards a Geometric Theory of Hybrid Systems. Lecture Notes in Computer Science, 2000, , 421-436.	1.3	36
32	The effect of discretized feedback in a closed loop system. , 1987, , .		34
33	Controlled Invariance of Discrete Time Systems. Lecture Notes in Computer Science, 2000, , 437-451.	1.3	31
34	Rank Conditions on the Multiple-View Matrix. International Journal of Computer Vision, 2004, 59, 115-137.	15.6	27
35	Optimal Coordinated Motions of Multiple Agents Moving on a Plane. SIAM Journal on Control and Optimization, 2003, 42, 637-668.	2.1	26
36	On the optimal detection of an underwater intruder in a channel using unmanned underwater vehicles. Naval Research Logistics, 2011, 58, 804-820.	2.2	26

#	ARTICLE	IF	CITATIONS
37	Mode Switching Synthesis for Reachability Specifications. Lecture Notes in Computer Science, 2001, , 333-346.	1.3	26
38	New stability theorems for averaging and their application to the convergence analysis of adaptive identification and control schemes. , 1985, , .		23
39	Kruppa Equation Revisited: Its Renormalization and Degeneracy. Lecture Notes in Computer Science, 2000, , 561-577.	1.3	21
40	Omnidirectional Egomotion Estimation From Back-projection Flow. , 2003, , .		21
41	Estimation over Wireless Sensor Networks. Proceedings of the American Control Conference, 2007, , .	0.0	21
42	Decidable Controller Synthesis for Classes of Linear Systems. Lecture Notes in Computer Science, 2000, , 407-420.	1.3	21
43	Computing Controllers for Nonlinear Hybrid Systems. Lecture Notes in Computer Science, 1999, , 238-255.	1.3	21
44	Sufficient conditions for the existence of zeno behavior in a class of nonlinear hybrid systems via constant approximations. , 2007, , .		16
45	Platform Design for Health-Care Monitoring Applications. , 2007, , .		16
46	Exponential convergence and robustness margins in adaptive control. , 1984, , .		15
47	Automatic Camera Network Localization using Object Image Tracks. , 2007, , .		15
48	Semi-decidable Synthesis for Triangular Hybrid Systems. Lecture Notes in Computer Science, 2001, , 487-500.	1.3	15
49	Security and Privacy Issues with Health Care Information Technology. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	15
50	Aircraft Conflict Detection in Presence of Spatially Correlated Wind Perturbations. , 2003, , .		14
51	Revisit Dynamic ARIMA Based Anomaly Detection. , 2011, , .		14
52	Distributed Networked Control System with Lossy Links: State Estimation and Stabilizing Communication Control. , 2006, , .		13
53	Slow-drift instability in model reference adaptive systems – an averaging analysis. International Journal of Control, 1987, 45, 503-527.	1.9	12
54	Using Social Network Theory Towards Development of Wireless Ad Hoc Network Trust. , 2007, , .		12

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55	Understanding deadlock and livelock behaviors in Hybrid Control Systems. Nonlinear Analysis: Hybrid Systems, 2009, 3, 150-162.	3.5	12
56	An External Active-Set Strategy for Solving Optimal Control Problems. IEEE Transactions on Automatic Control, 2009, 54, 1129-1133.	5.7	12
57	Dynamic Coordination of a Multiple Robotic System with Point Contact. , 1988, , .		11
58	Probabilistic reachability and safe sets computation for discrete time stochastic hybrid systems. , 2006, , .		11
59	Box invariance for biologically-inspired dynamical systems. , 2007, , .		11
60	Approximate Estimation of Distributed Networked Control Systems. Proceedings of the American Control Conference, 2007, , .	0.0	10
61	Optimal sensor density for remote estimation over Wireless Sensor Networks. , 2008, , .		9
62	Inherent Security of Routing Protocols in Ad-Hoc and Sensor Networks. , 2007, , .		8
63	NEW CONGESTION CONTROL SCHEMES OVER WIRELESS NETWORKS: STABILITY ANALYSIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 107-112.	0.4	7
64	Tracking on a graph. , 0, , .		7
65	Integrity checker for wireless sensor networks in health care applications. , 2008, , .		7
66	Algorithms for steering on the group of rotations. , 1993, , .		7
67	Indirect Techniques for Adaptive Input Output Linearization of Nonlinear Systems. , 1990, , .		6
68	Structure from Small Baseline Motion with Central Panoramic Cameras. , 2003, , .		6
69	Fusion-based localization for a Heterogeneous camera network. , 2008, , .		6
70	Science of design for societal-scale cyber-physical systems: challenges and opportunities. Cyber-Physical Systems, 2019, 5, 145-172.	2.0	6
71	Towards a viability theory of hybrid systems. , 2001, , .		5
72	Hybrid Geometric Reduction of Hybrid Systems. , 2006, , .		5

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73	Testbed Implementation of a Secure Flooding Time Synchronization Protocol. , 2008, , .		5
74	Lyapunov controllability and global optimal control. , 1986, , .		4
75	Hybrid Control of Unmanned Aerial Vehicles for Autonomous Landing. , 2003, , .		4
76	Convergence Analysis of Reweighted Sum-Product Algorithms. , 2007, , .		4
77	Analysis of the Godunov-Based Hybrid Model for Ramp Metering and Robust Feedback Control Design. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 2132-2142.	8.0	4
78	Bisimulation Based Hierarchical System Architecture for Single-Agent Multi-modal Systems. Lecture Notes in Computer Science, 2002, , 281-293.	1.3	4
79	Dynamic Control of Redundant Manipulators. , 1988, , .		3
80	Straightening out rectangular differential inclusions. Systems and Control Letters, 1998, 35, 79-85.	2.3	3
81	Design and analysis of a flow control scheme over wireless networks. International Journal of Robust and Nonlinear Control, 2013, 23, 208-228.	3.7	3
82	Learning prospect theory value function and reference point of a sequential decision maker. , 2017, , .		3
83	Global Controllability of Hybrid Systems with Controlled and Autonomous Switchings. Lecture Notes in Computer Science, 2001, , 375-386.	1.3	3
84	Pursuit Controller Performance Guarantees for a Lifeline Pursuit-Evasion Game over a Wireless Sensor Network. , 2006, , .		2
85	Elbow and elbow manipulators are optimal!. , 1985, , .		1
86	Data Fusion Assurance for the Kalman Filter in Uncertain Networks. , 2008, , .		1
87	Robust construction of the Camera Network Complex for topology recovery. , 2009, , .		1
88	Towards a theory of free-lunch privacy in cyber-physical systems. , 2017, , .		1
89	Multimodal Control of Constrained Nonlinear Systems. , 2004, , 325-344.		0
90	Optimal sensor-controller codesign for privacy in dynamical systems. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
91	Structural stability of hybrid systems1. , 2001, , .		0
92	Robotics, Hybrid Systems for. , 2003, , 283-292.		0