

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 | Science of design for societal-scale cyber-physical systems: challenges and opportunities. Cyber-Physical Systems, 2019, 5, 145-172. | 2.0 | 6 |
| 2 | Optimal sensor-controller codesign for privacy in dynamical systems. , 2017, , . | | 0 |
| 3 | Learning prospect theory value function and reference point of a sequential decision maker. , 2017, , . | | 3 |
| 4 | Towards a theory of free-lunch privacy in cyber-physical systems. , 2017, , . | | 1 |
| 5 | Safe sequential path planning of multi-vehicle systems via double-obstacle Hamilton-Jacobi-Isaacs variational inequality. , 2015, , . | | 44 |
| 6 | 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 |
| 7 | 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 |
| 8 | 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 |
| 9 | A Taxonomy of Cyber Attacks on SCADA Systems. , 2011, , . | | 285 |
| 10 | 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 |
| 11 | Revisit Dynamic ARIMA Based Anomaly Detection. , 2011, , . | | 14 |
| 12 | The VIKING project: An initiative on resilient control of power networks. , 2009, , . | | 38 |
| 13 | Understanding deadlock and livelock behaviors in Hybrid Control Systems. Nonlinear Analysis: Hybrid Systems, 2009, 3, 150-162. | 3.5 | 12 |
| 14 | 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 |
| 15 | 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 |
| 16 | An External Active-Set Strategy for Solving Optimal Control Problems. IEEE Transactions on Automatic Control, 2009, 54, 1129-1133. | 5.7 | 12 |
| 17 | Robust construction of the Camera Network Complex for topology recovery. , 2009, , . | | 1 |
| 18 | Probabilistic reachability and safety for controlled discrete time stochastic hybrid systems. Automatica, 2008, 44, 2724-2734. | 5.0 | 332 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Optimal linear LQG control over lossy networks without packet acknowledgment. Asian Journal of Control, 2008, 10, 3-13. | 3.0 | 72 |
| 20 | Optimal sensor density for remote estimation over Wireless Sensor Networks. , 2008, , . | | 9 |
| 21 | Data Fusion Assurance for the Kalman Filter in Uncertain Networks. , 2008, , . | | 1 |
| 22 | Integrity checker for wireless sensor networks in health care applications. , 2008, , . | | 7 |
| 23 | Fusion-based localization for a Heterogeneous camera network. , 2008, , . | | 6 |
| 24 | Transactional Confidentiality in Sensor Networks. IEEE Security and Privacy, 2008, 6, 28-35. | 1.2 | 41 |
| 25 | Testbed Implementation of a Secure Flooding Time Synchronization Protocol. , 2008, , . | | 5 |
| 26 | Approximate Estimation of Distributed Networked Control Systems. Proceedings of the American Control Conference, 2007, , . | 0.0 | 10 |
| 27 | An Evasive Maneuvering Algorithm for UAVs in See-and-Avoid Situations. Proceedings of the American Control Conference, 2007, , . | 0.0 | 40 |
| 28 | Inherent Security of Routing Protocols in Ad-Hoc and Sensor Networks. , 2007, , . | | 8 |
| 29 | Using Social Network Theory Towards Development of Wireless Ad Hoc Network Trust. , 2007, , . | | 12 |
| 30 | Box invariance for biologically-inspired dynamical systems. , 2007, , . | | 11 |
| 31 | Sufficient conditions for the existence of zeno behavior in a class of nonlinear hybrid systems via constant approximations. , 2007, , . | | 16 |
| 32 | Automatic Camera Network Localization using Object Image Tracks. , 2007, , . | | 15 |
| 33 | Estimation over Wireless Sensor Networks. Proceedings of the American Control Conference, 2007, , . | 0.0 | 21 |
| 34 | Convergence Analysis of Reweighted Sum-Product Algorithms. , 2007, , . | | 4 |
| 35 | 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 |
| 36 | Platform Design for Health-Care Monitoring Applications. , 2007, , . | | 16 |

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| 37 | Two-View Multibody Structure from Motion. International Journal of Computer Vision, 2006, 68, 7-25. | 15.6 | 119 |
| 38 | Probabilistic reachability and safe sets computation for discrete time stochastic hybrid systems. , 2006, , . | | 11 |
| 39 | Distributed Networked Control System with Lossy Links: State Estimation and Stabilizing Communication Control. , 2006, , . | | 13 |
| 40 | Hybrid Geometric Reduction of Hybrid Systems. , 2006, , . | | 5 |
| 41 | Pursuit Controller Performance Guarantees for a Lifeline Pursuit-Evasion Game over a Wireless Sensor Network. , 2006, , . | | 2 |
| 42 | 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 |
| 43 | 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 |
| 44 | Time synchronization attacks in sensor networks. , 2005, , . | | 81 |
| 45 | Generalized principal component analysis (GPCA). IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005, 27, 1945-1959. | 13.9 | 752 |
| 46 | Multimodal Control of Constrained Nonlinear Systems. , 2004, , 325-344. | | 0 |
| 47 | Optimal quantum circuit synthesis from controlled-unitary gates. Physical Review A, 2004, 69, . | 2.5 | 38 |
| 48 | Rank Conditions on the Multiple-View Matrix. International Journal of Computer Vision, 2004, 59, 115-137. | 15.6 | 27 |
| 49 | Geometric theory of nonlocal two-qubit operations. Physical Review A, 2003, 67, . | 2.5 | 292 |
| 50 | Aircraft Conflict Detection in Presence of Spatially Correlated Wind Perturbations. , 2003, , . | | 14 |
| 51 | Hybrid Control of Unmanned Aerial Vehicles for Autonomous Landing. , 2003, , . | | 4 |
| 52 | Omnidirectional Egomotion Estimation From Back-projection Flow. , 2003, , . | | 21 |
| 53 | Structure from Small Baseline Motion with Central Panoramic Cameras. , 2003, , . | | 6 |
| 54 | Optimal Coordinated Motions of Multiple Agents Moving on a Plane. SIAM Journal on Control and Optimization, 2003, 42, 637-668. | 2.1 | 26 |

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| 55 | Robotics, Hybrid Systems for. , 2003, , 283-292. | | 0 |
| 56 | Optimal Coordinated Maneuvers for Three-Dimensional Aircraft Conflict Resolution. Journal of Guidance, Control, and Dynamics, 2002, 25, 888-900. | 2.8 | 120 |
| 57 | Bisimulation Based Hierarchical System Architecture for Single-Agent Multi-modal Systems. Lecture Notes in Computer Science, 2002, , 281-293. | 1.3 | 4 |
| 58 | Towards a viability theory of hybrid systems. , 2001, , . | | 5 |
| 59 | Zeno hybrid systems. International Journal of Robust and Nonlinear Control, 2001, 11, 435-451. | 3.7 | 192 |
| 60 | Optimization Criteria and Geometric Algorithms for Motion and Structure Estimation. International Journal of Computer Vision, 2001, 44, 219-249. | 15.6 | 109 |
| 61 | Mode Switching Synthesis for Reachability Specifications. Lecture Notes in Computer Science, 2001, , 333-346. | 1.3 | 26 |
| 62 | Semi-decidable Synthesis for Triangular Hybrid Systems. Lecture Notes in Computer Science, 2001, , 487-500. | 1.3 | 15 |
| 63 | Global Controllability of Hybrid Systems with Controlled and Autonomous Switchings. Lecture Notes in Computer Science, 2001, , 375-386. | 1.3 | 3 |
| 64 | Structural stability of hybrid systems1. , 2001, , . | | 0 |
| 65 | Linear Differential Algorithm for Motion Recovery: A Geometric Approach. International Journal of Computer Vision, 2000, 36, 71-89. | 15.6 | 61 |
| 66 | O-Minimal Hybrid Systems. Mathematics of Control, Signals, and Systems, 2000, 13, 1-21. | 2.3 | 198 |
| 67 | Dynamical Systems Revisited: Hybrid Systems with Zeno Executions. Lecture Notes in Computer Science, 2000, , 451-464. | 1.3 | 48 |
| 68 | Kruppa Equation Revisited: Its Renormalization and Degeneracy. Lecture Notes in Computer Science, 2000, , 561-577. | 1.3 | 21 |
| 69 | Decidable Controller Synthesis for Classes of Linear Systems. Lecture Notes in Computer Science, 2000, , 407-420. | 1.3 | 21 |
| 70 | Towards a Geometric Theory of Hybrid Systems. Lecture Notes in Computer Science, 2000, , 421-436. | 1.3 | 36 |
| 71 | Controlled Invariance of Discrete Time Systems. Lecture Notes in Computer Science, 2000, , 437-451. | 1.3 | 31 |
| 72 | Nonlinear Systems. Interdisciplinary Applied Mathematics, 1999, , . | 0.3 | 549 |

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| 73 | On the regularization of Zeno hybrid automata. <i>Systems and Control Letters</i> , 1999, 38, 141-150. | 2.3 | 436 |
| 74 | Controllers for reachability specifications for hybrid systems. <i>Automatica</i> , 1999, 35, 349-370. | 5.0 | 506 |
| 75 | LANDING AN UNMANNED AIR VEHICLE: VISION BASED MOTION ESTIMATION AND NONLINEAR CONTROL. <i>Asian Journal of Control</i> , 1999, 1, 128-145. | 3.0 | 200 |
| 76 | Computing Controllers for Nonlinear Hybrid Systems. <i>Lecture Notes in Computer Science</i> , 1999, , 238-255. | 1.3 | 21 |
| 77 | Straightening out rectangular differential inclusions. <i>Systems and Control Letters</i> , 1998, 35, 79-85. | 2.3 | 3 |
| 78 | Algorithms for steering on the group of rotations. , 1993, , . | | 7 |
| 79 | Nonlinear control design for slightly non-minimum phase systems: Application to V/STOL aircraft. <i>Automatica</i> , 1992, 28, 665-679. | 5.0 | 583 |
| 80 | Indirect techniques for adaptive input-output linearization of non-linear systems. <i>International Journal of Control</i> , 1991, 53, 193-222. | 1.9 | 160 |
| 81 | Indirect Techniques for Adaptive Input Output Linearization of Nonlinear Systems. , 1990, , . | | 6 |
| 82 | Dynamic control of redundant manipulators. <i>Journal of Field Robotics</i> , 1989, 6, 133-148. | 0.7 | 184 |
| 83 | Dynamic Coordination of a Multiple Robotic System with Point Contact. , 1988, , . | | 11 |
| 84 | Dynamic Control of Redundant Manipulators. , 1988, , . | | 3 |
| 85 | Slow-drift instability in model reference adaptive systems – an averaging analysis. <i>International Journal of Control</i> , 1987, 45, 503-527. | 1.9 | 12 |
| 86 | The effect of discretized feedback in a closed loop system. , 1987, , . | | 34 |
| 87 | Lyapunov controllability and global optimal control. , 1986, , . | | 4 |
| 88 | New stability theorems for averaging and their application to the convergence analysis of adaptive identification and control schemes. , 1985, , . | | 23 |
| 89 | Elbow and elbow manipulators are optimal!. , 1985, , . | | 1 |
| 90 | Exponential convergence and robustness margins in adaptive control. , 1984, , . | | 15 |

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| 91 | Tracking on a graph. , 0, , . | | 7 |
| 92 | Planning for Autonomous Cars that Leverage Effects on Human Actions. , 0, , . | | 205 |