Suman Chakravorty

List of Publications by Year
in descending order

54 papers	546 citations	933447 10 h-index	713466 21 g-index
55 all docs	55 docs citations	55 times ranked	433 citing authors

#	ARTICLE	IF	CITATIONS
1	FIRM: Sampling-based feedback motion-planning under motion uncertainty and imperfect measurements. International Journal of Robotics Research, 2014, 33, 268-304.	8.5	168
2	The partition of unity finite element approach with hp-refinement for the stationary Fokkerâ€"Planck equation. Journal of Sound and Vibration, 2009, 327, 144-162.	3.9	44
3	A semianalytic meshless approach to the transient Fokkerâ€"Planck equation. Probabilistic Engineering Mechanics, 2010, 25, 323-331.	2.7	39
4	Generalized Sampling-Based Motion Planners. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 855-866.	5.0	35
5	Particle Gaussian mixture filters-I. Automatica, 2018, 98, 331-340.	5.0	24
6	SLAP: Simultaneous Localization and Planning Under Uncertainty via Dynamic Replanning in Belief Space. IEEE Transactions on Robotics, 2018, 34, 1195-1214.	10.3	22
7	Model and Data Based Approaches to the Control of Tensegrity Robots. IEEE Robotics and Automation Letters, 2020, 5, 3846-3853.	5.1	13
8	Fuel Optimal Maneuvers for Multispacecraft Interferometric Imaging Systems. Journal of Guidance, Control, and Dynamics, 2007, 30, 227-236.	2.8	11
9	T-LQG: Closed-loop belief space planning via trajectory-optimized LQG. , 2017, , .		11
10	Motion planning in uncertain environments with vision-like sensors. Automatica, 2007, 43, 2104-2111.	5.0	10
11	Particle Gaussian mixture filters-II. Automatica, 2018, 98, 341-349.	5.0	10
12	Guaranteed Classification Performance of Multi-Spacecraft Interferometric Imaging Systems. Journal of the Astronautical Sciences, 2003, 51, 205-226.	1.5	10
13	Motion Planning Under Uncertainty: Application to an Unmanned Helicopter. Journal of Guidance, Control, and Dynamics, 2007, 30, 1268-1276.	2.8	9
14	A homotopic approach to domain determination and solution refinement for the stationary Fokkerâ€"Planck equation. Probabilistic Engineering Mechanics, 2009, 24, 265-277.	2.7	9
15	On the probabilistic completeness of the sampling-based feedback motion planners in belief space. , 2012, , .		9
16	Adaptive sampling for generalized probabilistic roadmaps. Journal of Control Theory and Applications, 2012, 10, 1-10.	0.8	9
17	Design of Minimum Time Maneuvers for Multi-Spacecraft Interferometric Imaging Systems. Journal of the Astronautical Sciences, 2004, 52, 301-329.	1.5	9
18	A stochastic unknown input realization and filtering technique. Automatica, 2016, 63, 26-33.	5.0	8

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19	An Unscented Kalman-Particle Hybrid Filter for Space Object Tracking. Journal of the Astronautical Sciences, 2018, 65, 111-134.	1.5	8
20	RFM-SLAM: Exploiting relative feature measurements to separate orientation and position estimation in SLAM. , 2017, , .		8
21	Generalized sampling based motion planners with application to nonholonomic systems. , 2009, , .		7
22	Multi-agent Generalized Probabilistic RoadMaps: MAGPRM. , 2012, , .		7
23	A randomly perturbed iterative proper orthogonal decomposition (RI-POD) technique for filtering distributed parameter systems. , 2012, , .		6
24	Unifying consensus and covariance intersection for decentralized state estimation. , 2016, , .		6
25	A near-optimal decoupling principle for nonlinear stochastic systems arising in robotic path planning and control. , 2017, , .		6
26	Robust Pose-Graph SLAM Using Absolute Orientation Sensing. IEEE Robotics and Automation Letters, 2019, 4, 981-988.	5.1	6
27	A randomized proper orthogonal decomposition technique. , 2015, , .		5
28	A nonlinear filter based on Fokker Planck equation and MCMC measurement updates. , 2010, , .		3
29	A nonlinear filter based on Fokker-Planck equation. , 2010, , .		3
30	A computationally optimal randomized proper orthogonal decomposition technique. , 2016, , .		3
31	A Homotopic Approach to Domain Determination and Solution Refinement for the Fokker-Planck Equation. Proceedings of the American Control Conference, 2007, , .	0.0	2
32	A semianalytic meshless approach to the Fokker-Planck equation with application to hybrid systems. , 2007, , .		2
33	Nonlinear Filter Based on the Fokker-Planck Equation. Journal of Guidance, Control, and Dynamics, 2012, 35, 68-79.	2.8	2
34	Periodic-Node Graph-Based Framework for Stochastic Control of Small Aerial Vehicles. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	1.6	2
35	Efficient distributed state estimation of hidden Markov Models over unreliable networks. , 2017, , .		2
36	T-PFC: A Trajectory-Optimized Perturbation Feedback Control Approach. IEEE Robotics and Automation Letters, 2019, 4, 3457-3464.	5.1	2

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37	Unifying Consensus and Covariance Intersection for Efficient Distributed State Estimation Over Unreliable Networks. IEEE Transactions on Robotics, 2021, 37, 1525-1538.	10.3	2
38	Structure Aided Odometry (SAO) : A Novel Analytical Odometry Technique Based on Semi-Absolute Localization for Precision-Warehouse Robotic Assistance in Environments with Low Feature Variation. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 102, 1.	3.4	2
39	Data-based Control of Partially-Observed Robotic Systems. , 2021, , .		2
40	Modeling of Image Formation in Multi-Spacecraft Interferometric Imaging Systems. Journal of the Astronautical Sciences, 2005, 53, 281-300.	1.5	2
41	Motion Planning in an Uncertain Environment: Application to an Unmanned Helicopter. , 2006, , .		1
42	Fuel-Efficient Interferometric Imaging Maneuvers in Near-Earth Orbit. Journal of Guidance, Control, and Dynamics, 2008, 31, 1133-1144.	2.8	1
43	Robust Air-Traffic Control Using Ground-Delays and Rerouting of Flights. Journal of Aerospace Computing, Information, and Communication, 2009, 6, 649-674.	0.8	1
44	Adaptive sampling for generalized sampling based motion planners. , 2010, , .		1
45	An Iterative Proper Orthogonal Decomposition (I-POD) Technique with Application to the Filtering of Partial Differential Equations. Journal of the Astronautical Sciences, 2013, 60, 468-493.	1.5	1
46	An autoregressive (AR) model based stochastic unknown input realization and filtering technique. , 2015, , .		1
47	A Decoupled Data Based Control (D2C) Approach to Generalized Motion Planning Problems. , 2019, , .		1
48	Decoupled Data-Based Approach for Learning to Control Nonlinear Dynamical Systems. IEEE Transactions on Automatic Control, 2022, 67, 3582-3589.	5.7	1
49	Two-Stage Controller Algorithm for Multi-Spacecraft Interferometric Imaging Systems. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 1248-1261.	4.7	0
50	Graph-based stochastic control with constraints: A unified approach with perfect and imperfect measurements. , 2013, , .		0
51	A Hybrid Bayesian-Frequentist Approach to SLAM. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 83, 561-583.	3.4	0
52	MT-LQG: Multi-agent planning in belief space via trajectory-optimized LQG. , 2017, , .		0
53	Efficient recursive distributed state estimation of hidden Markov models over unreliable networks. Autonomous Robots, 2020, 44, 321-338.	4.8	0
54	A randomized balanced proper orthogonal decomposition technique. Journal of Computational and Applied Mathematics, 2020, 368, 112540.	2.0	0