Sachin Patil

List of Publications by Year
in descending order

25 papers	1,702 citations	840776 11 h-index	1199594 12 g-index
25 all docs	25 docs citations	25 times ranked	1513 citing authors

#	Article	IF	Citations
1	Motion planning with sequential convex optimization and convex collision checking. International Journal of Robotics Research, 2014, 33, 1251-1270.	8.5	532
2	Motion planning under uncertainty using iterative local optimization in belief space. International Journal of Robotics Research, 2012, 31, 1263-1278.	8.5	215
3	Learning by observation for surgical subtasks: Multilateral cutting of 3D viscoelastic and 2D Orthotropic Tissue Phantoms. , 2015, , .		121
4	Needle Steering in 3-D Via Rapid Replanning. IEEE Transactions on Robotics, 2014, 30, 853-864.	10.3	115
5	Needle path planning and steering in a three-dimensional non-static environment using two-dimensional ultrasound images. International Journal of Robotics Research, 2014, 33, 1361-1374.	8.5	107
6	Interactive motion planning for steerable needles in 3D environments with obstacles. , 2010, , 893-899.		76
7	Experimental evaluation of ultrasound-guided 3D needle steering in biological tissue. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 931-939.	2.8	58
8	Transition state clustering: Unsupervised surgical trajectory segmentation for robot learning. International Journal of Robotics Research, 2017, 36, 1595-1618.	8.5	58
9	High-Frequency Replanning Under Uncertainty Using Parallel Sampling-Based Motion Planning. IEEE Transactions on Robotics, 2015, 31, 104-116.	10.3	54
10	Scaling up Gaussian Belief Space Planning Through Covariance-Free Trajectory Optimization and Automatic Differentiation. Springer Tracts in Advanced Robotics, 2015, , 515-533.	0.4	41
11	Ultrasound-guided three-dimensional needle steering in biological tissue with curved surfaces. Medical Engineering and Physics, 2015, 37, 145-150.	1.7	40
12	Toward asymptotically optimal motion planning for kinodynamic systems using a two-point boundary value problem solver. , 2015, , .		39
13	Physics-based trajectory optimization for grasping in cluttered environments. , 2015, , .		36
14	LQG-Based Planning, Sensing, and Control of Steerable Needles. Springer Tracts in Advanced Robotics, 2010, , 373-389.	0.4	35
15	Sigma hulls for Gaussian belief space planning for imprecise articulated robots amid obstacles. , 2013, , .		29
16	Motion Planning Under Uncertainty In Highly Deformable Environments. , 2011, , .		28
17	Multi-armed bandit models for 2D grasp planning with uncertainty. , 2015, , .		20
18	Needle steering in biological tissue using ultrasound-based online curvature estimation. , 2014, 2014, 4368-4373.		17

#	ARTICLE	IF	CITATIONS
19	A paced shared-control teleoperated architecture for supervised automation of multilateral surgical tasks. , 2015, , .		17
20	Model-based reinforcement learning with parametrized physical models and optimism-driven exploration. , 2016, , .		17
21	Planning Curvature and Torsion Constrained Ribbons in 3D With Application to Intracavitary Brachytherapy. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1332-1345.	5.2	15
22	Planning locally optimal, curvature-constrained trajectories in 3D using sequential convex optimization. , 2014, , .		14
23	An algorithm for computing customized 3D printed implants with curvature constrained channels for enhancing intracavitary brachytherapy radiation delivery. , 2013, , .		12
24	Occlusion-aware multi-robot 3D tracking. , 2016, , .		4
25	Planning Curvature and Torsion Constrained Ribbons in 3D with Application toÂIntracavitary Brachytherapy. Springer Tracts in Advanced Robotics, 2015, , 535-552.	0.4	2