Vijay Kumar

List of Publications by Year in descending order

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28 papers	2,045 citations	759233 12 h-index	1058476 14 g-index
28 all docs	28 docs citations	28 times ranked	2162 citing authors

#	Article	IF	Citations
1	Decentralized Goal Assignment and Safe Trajectory Generation in Multirobot Networks via Multiple Lyapunov Functions. IEEE Transactions on Automatic Control, 2020, 65, 3365-3380.	5.7	9
2	Real Time Dense Depth Estimation by Fusing Stereo with Sparse Depth Measurements. , 2019, , .		8
3	Cellular expression through morphogen delivery by light activated magnetic microrobots. Journal of Micro-Bio Robotics, 2019, 15, 79-90.	2.1	13
4	Catalytic antimicrobial robots for biofilm eradication. Science Robotics, 2019, 4, .	17.6	154
5	Nanoliter Fluid Handling for Microbiology Via Levitated Magnetic Microrobots. IEEE Robotics and Automation Letters, 2019, 4, 997-1004.	5.1	18
6	Inverse Optimal Planning for Air Traffic Control. , 2019, , .		2
7	DFuseNet: Deep Fusion of RGB and Sparse Depth Information for Image Guided Dense Depth Completion. , 2019, , .		74
8	Toward Soft Micro Bio Robots for Cellular and Chemical Delivery. IEEE Robotics and Automation Letters, 2018, 3, 1592-1599.	5.1	34
9	Learning Sample-Efficient Target Reaching for Mobile Robots. , 2018, , .		1
10	3D Micromolding of Small-Scale Biological Robots. , 2018, , .		5
11	Experiments and open-loop control of multiple catalytic microrobots. Journal of Micro-Bio Robotics, 2018, 14, 25-34.	2.1	17
12	A Survey on Aerial Swarm Robotics. IEEE Transactions on Robotics, 2018, 34, 837-855.	10.3	365
13	Hybrid architecture for communication-aware multi-robot systems. , 2016, , .		7
14	Independent Control of Identical Magnetic Robots in a Plane. IEEE Robotics and Automation Letters, 2016, 1, 554-561.	5.1	51
15	Cooperative Visibility Maintenance for Leaderâ€“Follower Formations in Obstacle Environments. IEEE Transactions on Robotics, 2014, 30, 831-844.	10.3	115
16	Multi-robot coverage and exploration on Riemannian manifolds with boundaries. International Journal of Robotics Research, 2014, 33, 113-137.	8.5	70
17	Automated biomanipulation of single cells using magnetic microrobots. International Journal of Robotics Research, 2013, 32, 346-359.	8.5	218
18	Incremental micro-UAV motion replanning for exploring unknown environments. , 2013, , .		48

#	Article	IF	Citations
19	Assessment of protein binding with magnetic microrobots in fluid. , 2013, , .		5
20	Automated biomanipulation of single cells. , 2012, , .		2
21	Maintaining visibility for leader-follower formations in obstacle environments. , 2012, , .		14
22	The GRASP Multiple Micro-UAV Testbed. IEEE Robotics and Automation Magazine, 2010, 17, 56-65.	2.0	615
23	Single cell manipulation using ferromagnetic composite microtransporters. Applied Physics Letters, 2010, 96, 043705.	3.3	127
24	Biosensing and actuation for microbiorobots. , 2010, , .		17
25	Harnessing bacterial power in microscale actuation. , 2009, , .		13
26	Dynamic redistribution of a swarm of robots among multiple sites. , 2007, , .		34
27	Controlling biological systems: the lactose regulation system of Escherichia coli. Proceedings of the American Control Conference, 2007, , .	0.0	4
28	Finite state abstraction of a stochastic model of the lactose regulation system of Escherichia coli. , 2006, , .		5