

Mongying Hsieh-Cowley

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

951
citations

686830

13
h-index

500791

28
g-index

52
all docs

52
docs citations

52
times ranked

699
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimized Stochastic Policies for Task Allocation in Swarms of Robots. IEEE Transactions on Robotics, 2009, 25, 927-937.	7.3	200
2	Adaptive teams of autonomous aerial and ground robots for situational awareness. Journal of Field Robotics, 2007, 24, 991-1014.	3.2	127
3	Biologically inspired redistribution of a swarm of robots among multiple sites. Swarm Intelligence, 2008, 2, 121-141.	1.3	79
4	Robotic Tracking of Coherent Structures in Flows. IEEE Transactions on Robotics, 2014, 30, 593-603.	7.3	44
5	Adaptive Disturbance Rejection Control Scheme for DFIG-Based Wind Turbine: Theory and Experiments. IEEE Transactions on Industry Applications, 2016, 52, 2006-2015.	3.3	40
6	Optimal Path Planning in Time-Varying Flows Using Adaptive Discretization. IEEE Robotics and Automation Letters, 2018, 3, 458-465.	3.3	36
7	Coordination of multiple AGVs: a quadratic optimization method. Autonomous Robots, 2019, 43, 539-555.	3.2	35
8	Dynamic redistribution of a swarm of robots among multiple sites. , 2007, , .		34
9	Going with the flow: a graph based approach to optimal path planning in general flows. Autonomous Robots, 2018, 42, 1369-1387.	3.2	33
10	Time and Energy Optimal Path Planning in General Flows. , 0, , .		33
11	Collective motion patterns of swarms with delay coupling: Theory and experiment. Physical Review E, 2016, 93, 032307.	0.8	28
12	KNODE-MPC: A Knowledge-Based Data-Driven Predictive Control Framework for Aerial Robots. IEEE Robotics and Automation Letters, 2022, 7, 2819-2826.	3.3	24
13	Adaptive Sampling and Reduced-Order Modeling of Dynamic Processes by Robot Teams. IEEE Robotics and Automation Letters, 2019, 4, 477-484.	3.3	16
14	Optimal Path Planning in Time-Varying Flows with Forecasting Uncertainties. , 2018, , .		15
15	Information Theoretic Source Seeking Strategies for Multiagent Plume Tracking in Turbulent Fields. Journal of Marine Science and Engineering, 2017, 5, 3.	1.2	14
16	Knowledge-based learning of nonlinear dynamics and chaos. Chaos, 2021, 31, 111101.	1.0	14
17	Distributed assembly with online workload balancing and visual error detection and correction. International Journal of Robotics Research, 2014, 33, 534-546.	5.8	12
18	Synthesis of a Time-Varying Communication Network by Robot Teams With Information Propagation Guarantees. IEEE Robotics and Automation Letters, 2020, 5, 1413-1420.	3.3	12

#	ARTICLE	IF	CITATIONS
19	Navigation-based optimization of stochastic strategies for allocating a robot swarm among multiple sites. , 2008, , .		11
20	Specialization as an optimal strategy under varying external conditions. , 2009, , .		11
21	Synchronous Rendezvous for Networks of Marine Robots in Large Scale Ocean Monitoring. <i>Frontiers in Robotics and AI</i> , 2019, 6, 76.	2.0	11
22	Delay induced swarm pattern bifurcations in mixed reality experiments. <i>Chaos</i> , 2020, 30, 073126.	1.0	11
23	Synthesis and analysis of distributed ensemble control strategies for allocation to multiple tasks. <i>Robotica</i> , 2014, 32, 177-192.	1.3	10
24	Low-Range Interaction Periodic Rendezvous Along Lagrangian Coherent Structures. , 2019, , .		10
25	Bridging the gap: Machine learning to resolve improperly modeled dynamics. <i>Physica D: Nonlinear Phenomena</i> , 2020, 414, 132736.	1.3	7
26	Resilient Consensus in Robot Swarms With Periodic Motion and Intermittent Communication. <i>IEEE Transactions on Robotics</i> , 2022, 38, 110-125.	7.3	7
27	Controlling Basin Breakout for Robots Operating in Uncertain Flow Environments. <i>Springer Tracts in Advanced Robotics</i> , 2016, , 561-576.	0.3	7
28	Distributed allocation of mobile sensing agents in geophysical flows. , 2014, , .		6
29	Going With the Flow: Enhancing Stochastic Switching Rates in Multigyre Systems. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2015, 137, .	0.9	6
30	A Quadratic Programming approach for coordinating multi-AGV systems. , 2015, , .		6
31	Modular Robot Formation and Routing for Resilient Consensus. , 2020, , .		6
32	Using control to shape stochastic escape and switching dynamics. <i>Chaos</i> , 2019, 29, 053128.	1.0	5
33	Learning to Swarm with Knowledge-Based Neural Ordinary Differential Equations. , 2022, , .		4
34	Towards dynamic team formation for robot ensembles. , 2010, , .		3
35	Experimental validation of robotic manifold tracking in gyre-like flows. , 2014, , .		3
36	Zig-zag wanderer: Towards adaptive tracking of time-varying coherent structures in the ocean. , 2015, , .		3

#	ARTICLE	IF	CITATIONS
37	Toward efficient navigation in uncertain gyre-like flows. <i>International Journal of Robotics Research</i> , 2015, 34, 1590-1603.	5.8	3
38	Torus bifurcations of large-scale swarms having range dependent communication delay. <i>Chaos</i> , 2020, 30, 051106.	1.0	3
39	Critical transition for colliding swarms. <i>Physical Review E</i> , 2021, 103, 062602.	0.8	3
40	EV-Catcher: High-Speed Object Catching Using Low-Latency Event-Based Neural Networks. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 8737-8744.	3.3	3
41	Flow-Based Control of Marine Robots in Gyre-Like Environments. , 2022, , .		3
42	Ensemble synthesis of distributed control and communication strategies. , 2012, , .		2
43	Intrusion detection for stochastic task allocation in robot swarms. , 2017, , .		2
44	Nonlinear Synchronization Control for Short-Range Mobile Sensors Drifting in Geophysical Flows. , 2020, , .		2
45	Exploiting Stochasticity for the Control of Transitions in Gyre Flows. , 0, , .		2
46	Learning and Leveraging Features in Flow-Like Environments to Improve Situational Awareness. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 2071-2078.	3.3	2
47	Asynchronous Adaptive Sampling and Reduced-Order Modeling of Dynamic Processes by Robot Teams via Intermittently Connected Networks. , 2020, , .		2
48	A Topological Approach to Path Planning for a Magnetic Millirobot. , 2020, , .		1
49	Design and validation of a micro-AUV for 3-D sampling of coherent ocean features. , 2015, , .		0
50	Guest Editorial Special Section on the Thirteenth IEEE International Symposium on Safety, Security, and Rescue Robotics. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017, 14, 3-4.	3.4	0
51	Evaluating the Effectiveness of Perspective Aware Planning with Panoramas. , 2019, , .		0