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	Resilient Consensus in Robot Swarms With Periodic Motion and Intermittent Communication. IEEE Transactions on Robotics, 2022, 38, 110-125.	7.3	7
2	Learning and Leveraging Features in Flow-Like Environments to Improve Situational Awareness. IEEE Robotics and Automation Letters, 2022, 7, 2071-2078.	3.3	2
3	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
4	EV-Catcher: High-Speed Object Catching Using Low-Latency Event-Based Neural Networks. IEEE Robotics and Automation Letters, 2022, 7, 8737-8744.	3.3	3
5	Flow-Based Control of Marine Robots in Gyre-Like Environments. , 2022, , .		3
6	Learning to Swarm with Knowledge-Based Neural Ordinary Differential Equations. , 2022, , .		4
7	Critical transition for colliding swarms. Physical Review E, 2021, 103, 062602.	0.8	3
8	Knowledge-based learning of nonlinear dynamics and chaos. Chaos, 2021, 31, 111101.	1.0	14
9	Delay induced swarm pattern bifurcations in mixed reality experiments. Chaos, 2020, 30, 073126.	1.0	11
10	Modular Robot Formation and Routing for Resilient Consensus. , 2020, , .		6
11	Nonlinear Synchronization Control for Short-Range Mobile Sensors Drifting in Geophysical Flows. , 2020, , .		2
12	Bridging the gap: Machine learning to resolve improperly modeled dynamics. Physica D: Nonlinear Phenomena, 2020, 414, 132736.	1.3	7
13	Torus bifurcations of large-scale swarms having range dependent communication delay. Chaos, 2020, 30, 051106.	1.0	3
14	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
15	A Topological Approach to Path Planning for a Magnetic Millirobot. , 2020, , .		1
16	Asynchronous Adaptive Sampling and Reduced-Order Modeling of Dynamic Processes by Robot Teams via Intermittently Connected Networks. , 2020, , .		2
17	Evaluating the Effectiveness of Perspective Aware Planning with Panoramas. , 2019, , .		0
18	Using control to shape stochastic escape and switching dynamics. Chaos, 2019, 29, 053128.	1.0	5

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19	Low-Range Interaction Periodic Rendezvous Along Lagrangian Coherent Structures. , 2019, , .		10
20	Synchronous Rendezvous for Networks of Marine Robots in Large Scale Ocean Monitoring. Frontiers in Robotics and AI, 2019, 6, 76.	2.0	11
21	Adaptive Sampling and Reduced-Order Modeling of Dynamic Processes by Robot Teams. IEEE Robotics and Automation Letters, 2019, 4, 477-484.	3.3	16
22	Coordination of multiple AGVs: a quadratic optimization method. Autonomous Robots, 2019, 43, 539-555.	3.2	35
23	Optimal Path Planning in Time-Varying Flows with Forecasting Uncertainties. , 2018, , .		15
24	Optimal Path Planning in Time-Varying Flows Using Adaptive Discretization. IEEE Robotics and Automation Letters, 2018, 3, 458-465.	3.3	36
25	Going with the flow: a graph based approach to optimal path planning in general flows. Autonomous Robots, 2018, 42, 1369-1387.	3.2	33
26	Guest Editorial Special Section on the Thirteenth IEEE International Symposium on Safety, Security, and Rescue Robotics. IEEE Transactions on Automation Science and Engineering, 2017, 14, 3-4.	3.4	0
27	Intrusion detection for stochastic task allocation in robot swarms. , 2017, , .		2
28	Information Theoretic Source Seeking Strategies for Multiagent Plume Tracking in Turbulent Fields. Journal of Marine Science and Engineering, 2017, 5, 3.	1.2	14
29	Collective motion patterns of swarms with delay coupling: Theory and experiment. Physical Review E, 2016, 93, 032307.	0.8	28
30	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
31	Controlling Basin Breakout for Robots Operating in Uncertain Flow Environments. Springer Tracts in Advanced Robotics, 2016, , 561-576.	0.3	7
32	Design and validation of a micro-AUV for 3-D sampling of coherent ocean features. , 2015, , .		0
33	Zig-zag wanderer: Towards adaptive tracking of time-varying coherent structures in the ocean. , 2015, , .		3
34	Going With the Flow: Enhancing Stochastic Switching Rates in Multigyre Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	6
35	Toward efficient navigation in uncertain gyre-like flows. International Journal of Robotics Research, 2015, 34, 1590-1603.	5.8	3
36	A Quadratic Programming approach for coordinating multi-AGV systems. , 2015, , .		6

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37	Experimental validation of robotic manifold tracking in gyre-like flows. , 2014, , .		3
38	Distributed assembly with online workload balancing and visual error detection and correction. International Journal of Robotics Research, 2014, 33, 534-546.	5.8	12
39	Synthesis and analysis of distributed ensemble control strategies for allocation to multiple tasks. Robotica, 2014, 32, 177-192.	1.3	10
40	Distributed allocation of mobile sensing agents in geophysical flows. , 2014, , .		6
41	Robotic Tracking of Coherent Structures in Flows. IEEE Transactions on Robotics, 2014, 30, 593-603.	7.3	44
42	Ensemble synthesis of distributed control and communication strategies. , 2012, , .		2
43	Towards dynamic team formation for robot ensembles. , 2010, , .		3
44	Specialization as an optimal strategy under varying external conditions. , 2009, , .		11
45	Optimized Stochastic Policies for Task Allocation in Swarms of Robots. IEEE Transactions on Robotics, 2009, 25, 927-937.	7.3	200
46	Biologically inspired redistribution of a swarm of robots among multiple sites. Swarm Intelligence, 2008, 2, 121-141.	1.3	79
47	Navigation-based optimization of stochastic strategies for allocating a robot swarm among multiple sites. , 2008, , .		11
48	Dynamic redistribution of a swarm of robots among multiple sites. , 2007, , .		34
49	Adaptive teams of autonomous aerial and ground robots for situational awareness. Journal of Field Robotics, 2007, 24, 991-1014.	3.2	127
50	Time and Energy Optimal Path Planning in General Flows. , 0, , .		33
51	Exploiting Stochasticity for the Control of Transitions in Gyre Flows. , 0, , .		2