

Yi Guo

List of Publications by Year in descending order

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121
papers

2,272
citations

394421

19
h-index

315739

38
g-index

129
all docs

129
docs citations

129
times ranked

1883
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear decentralized control of large-scale power systems. Automatica, 2000, 36, 1275-1289.	5.0	282
2	Global transient stability and voltage regulation for power systems. IEEE Transactions on Power Systems, 2001, 16, 678-688.	6.5	194
3	Global time-varying stabilization of underactuated surface vessel. IEEE Transactions on Automatic Control, 2005, 50, 859-864.	5.7	133
4	Cooperative Distributed Source Seeking by Multiple Robots: Algorithms and Experiments. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1810-1820.	5.8	132
5	A distributed and optimal motion planning approach for multiple mobile robots. , 0, , .		95
6	Accelerating 5G QoE via public-private spectrum sharing. , 2014, 52, 77-85.		87
7	Decentralized robust disturbance attenuation for a class of large-scale nonlinear systems. Systems and Control Letters, 1999, 37, 71-85.	2.3	74
8	Accurate Ambulatory Gait Analysis in Walking and Running Using Machine Learning Models. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 191-202.	4.9	71
9	Multi-robot cooperative control for monitoring and tracking dynamic plumes. , 2014, , .		55
10	Distributed Consensus-Based Weight Design for Cooperative Spectrum Sensing. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 54-64.	5.6	49
11	Robot-Assisted Pedestrian Regulation Based on Deep Reinforcement Learning. IEEE Transactions on Cybernetics, 2020, 50, 1669-1682.	9.5	46
12	Human Mobility Modeling for Robot-Assisted Evacuation in Complex Indoor Environments. IEEE Transactions on Human-Machine Systems, 2016, 46, 694-707.	3.5	42
13	Learning How Pedestrians Navigate: A Deep Inverse Reinforcement Learning Approach. , 2018, , .		42
14	Distributed source seeking by cooperative robots: All-to-all and limited communications. , 2012, , .		40
15	Distributed consensus filter on directed switching graphs. International Journal of Robust and Nonlinear Control, 2015, 25, 2019-2040.	3.7	38
16	Coverage control for a mobile robot patrolling a dynamic and uncertain environment. , 0, , .		32
17	Dynamic Plume Tracking by Cooperative Robots. IEEE/ASME Transactions on Mechatronics, 2019, 24, 609-620.	5.8	32
18	Learning Human-Robot Interaction for Robot-Assisted Pedestrian Flow Optimization. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 797-813.	9.3	30

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19	A novel LTCC miniaturized dualband balun. IEEE Microwave and Wireless Components Letters, 2006, 16, 143-145.	3.2	29
20	Simulating large-scale pedestrian movement using CA and event driven model: Methodology and case study. Physica A: Statistical Mechanics and Its Applications, 2015, 437, 304-321.	2.6	28
21	Stabilization and Tracking via Output Feedback for the Nonlinear Benchmark System. Automatica, 1998, 34, 907-915.	5.0	24
22	Formation control of nonholonomic mobile robots. , 2006, , .		23
23	Backstepping-based synchronisation of uncertain networked Lagrangian systems. International Journal of Systems Science, 2014, 45, 145-158.	5.5	22
24	A Case Study on a Capsule Robot in the Gastrointestinal Tract to Teach Robot Programming and Navigation. IEEE Transactions on Education, 2014, 57, 112-121.	2.4	22
25	Control of frictional dynamics of a one-dimensional particle array. Automatica, 2008, 44, 2560-2569.	5.0	21
26	Robust consensus for uncertain multi-agent systems on directed communication topologies. , 2010, , .		21
27	Complete coverage control for nonholonomic mobile robots in dynamic environments. , 0, , .		20
28	Distributed Multi-Robot Evacuation Incorporating Human Behavior. Asian Journal of Control, 2015, 17, 34-44.	3.0	19
29	Lyapunov stability and precise control of the frictional dynamics of a one-dimensional particle array. Physical Review B, 2006, 73, .	3.2	18
30	Global Trajectory Generation for Nonholonomic Robots in Dynamic Environments. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	18
31	Multiagent flocking with formation in a constrained environment. Journal of Control Theory and Applications, 2010, 8, 151-159.	0.8	18
32	Robotic simulation of dynamic plume tracking by Unmanned Surface Vessels. , 2015, , .		17
33	Dynamic consensus estimation of weighted average on directed graphs. International Journal of Systems Science, 2015, 46, 1839-1853.	5.5	17
34	Global nonlinear control of the ball and beam system. , 0, , .		16
35	Performance-based rough terrain navigation for nonholonomic mobile robots. , 0, , .		16
36	Adaptive output consensus tracking of uncertain multi-agent systems. , 2011, , .		15

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37	Consensus on scale-free network. , 2008, , .		14
38	Distributed Cooperative Spectrum Sensing Based on Weighted Average Consensus. , 2011, , .		14
39	Wearable Biofeedback System to Induce Desired Walking Speed in Overground Gait Training. Sensors, 2020, 20, 4002.	3.8	14
40	Cooperative Driving based on Inter-vehicle Communications: Experimental Platform and Algorithm. , 2006, , .		13
41	Nanotribology and nanoscale friction. IEEE Control Systems, 2008, 28, 92-100.	0.8	13
42	Nonlinear dynamics and synchronization of an array of single mode laser diodes in external cavity subject to current modulation. Optics Communications, 2014, 324, 301-310.	2.1	13
43	Robot-assisted pedestrian regulation in an exit corridor. , 2016, , .		13
44	Transductive Learning Models for Accurate Ambulatory Gait Analysis in Elderly Residents of Assisted Living Facilities. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 124-134.	4.9	13
45	H ∞ control for a class of structured time-delay systems. Systems and Control Letters, 2002, 45, 35-47.	2.3	12
46	Robot-assisted smartphone localization for human indoor tracking. Robotics and Autonomous Systems, 2018, 106, 82-94.	5.1	12
47	Multi-robot formation control: a comparison between model-based and learning-based methods. Journal of Control and Decision, 2020, 7, 90-108.	1.6	12
48	Distributed Heterogeneous Sensing for Outdoor Multi-Robot Localization, Mapping, and Path Planning. , 2002, , 21-30.		12
49	Pedestrian-Robot Interaction Experiments in an Exit Corridor. , 2018, , .		11
50	Nonlinear tracking control of underactuated surface vessel. , 0, , .		10
51	A learning based approach for social force model parameter estimation. , 2017, , .		10
52	A power system control scheme based on security visualisation in parameter space. International Journal of Electrical Power and Energy Systems, 2005, 27, 488-495.	5.5	9
53	Unified control for Pendubot at four equilibrium points. IET Control Theory and Applications, 2011, 5, 155.	2.1	9
54	Neural-network based AUV path planning in estuary environments. , 2012, , .		9

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55	Average consensus with weighting matrix design for quantized communication on directed switching graphs. International Journal of Adaptive Control and Signal Processing, 2013, 27, 519-540.	4.1	9
56	Robot-assisted human indoor localization using the Kinect sensor and smartphones. , 2014, , .		9
57	Collaborative Robots for Infrastructure Security Applications. Studies in Computational Intelligence, 2007, , 185-200.	0.9	9
58	New trajectory generation methods for nonholonomic mobile robots. , 2005, , .		8
59	Formation Control of Nonholonomic Mobile Robots Using Graph Theoretical Methods. , 2007, , 369-386.		8
60	Dynamic tracking control of uncertain nonholonomic mobile robots. , 2005, , .		7
61	Nonlinear Enhancement of Weak Signals Using Optimization Theory. , 2006, , .		7
62	Optimal trajectory generation for nonholonomic robots in dynamic environments. , 2008, , .		7
63	Probabilistic human mobility model in indoor environment. , 2016, , .		7
64	Pedestrian Flow Optimization to Reduce the Risk of Crowd Disasters Through Human-Robot Interaction. IEEE Transactions on Emerging Topics in Computational Intelligence, 2020, 4, 298-311.	4.9	7
65	Atomic-scale friction control by vibration using friction force microscope. Control Engineering Practice, 2011, 19, 1387-1397.	5.5	6
66	Distributed multi-robot evacuation incorporating human behavior. , 2013, , .		6
67	Discrete-time consensus filters on directed switching graphs. , 2014, , .		6
68	Robot-assisted pedestrian flow control of a controlled pedestrian corridor. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881469.	2.1	6
69	Robot-Assisted and Wearable Sensor-Mediated Autonomous Gait Analysis ^{<sup>Â&#x2013;}		6
70	Learning Human Navigation Behavior Using Measured Human Trajectories in Crowded Spaces. , 2020, , .		6
71	A decentralized control for mobile sensor network effective coverage. , 2008, , .		5
72	Synchronization on a segment without localization: algorithm and applications. , 2009, , .		5

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73	Distributed consensus filter on directed graphs with switching topologies. , 2013, , .		5
74	Learning Decentralized Control Policies for Multi-Robot Formation. , 2019, , .		5
75	Coupled Multiple Dynamic Movement Primitives Generalization for Deformable Object Manipulation. IEEE Robotics and Automation Letters, 2022, 7, 5381-5388.	5.1	5
76	Robust decentralized excitation control of multimachine power systems. , 1999, , .		4
77	Decentralized disturbance attenuation for large-scale nonlinear systems with delayed state interconnections. , 2004, , .		4
78	Stabilization and tracking control of friction dynamics of a one-dimensional nanoarray. , 0, , .		4
79	Oscillatory Tracking Control of a Class of Nonlinear Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	1.6	4
80	Cooperative Control Design for Nanorobots in Drug Delivery. , 2013, , 101-123.		4
81	Mobile Robot Assisted Gait Monitoring and Dynamic Margin of Stability Estimation. IEEE Transactions on Medical Robotics and Bionics, 2022, 4, 460-471.	3.2	4
82	Reinforcement Learning-Based Adaptive Biofeedback Engine for Overground Walking Speed Training. IEEE Robotics and Automation Letters, 2022, 7, 8487-8494.	5.1	4
83	Adaptive backstepping-based synchronization of uncertain networked Lagrangian systems. , 2011, , .		3
84	Distributed-parameter Luenberger observer for semi-linear parabolic PDE systems with a mobile pointwise sensor. , 2016, , .		3
85	Discrete-Time Consensus Filters for Average Tracking of Time-Varying Inputs on Directed Switching Graphs. Asian Journal of Control, 2018, 20, 919-934.	3.0	3
86	Leaderless cooperative control of robotic sensor networks for monitoring dynamic pollutant plumes. IET Control Theory and Applications, 2019, 13, 2670-2680.	2.1	3
87	Distance-based Formation Control of a Three-Robot System. , 2019, , .		3
88	Decentralized Robust Disturbance Attenuation for Large-Scale Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 847-852.	0.4	2
89	Stability of an AFM-based sliding system. , 2009, , .		2
90	Graph rigidity control of mobile robot networks. , 2010, , .		2

#	ARTICLE	IF	CITATIONS
91	Minimal persistence control on dynamic directed graphs for multi-robot formation. , 2012, , .		2
92	Selected Topics in Micro/Nano-robotics for Biomedical Applications. , 2013, , .		2
93	Synchronizing coupled semiconductor lasers under general coupling topologies. , 2013, , .		2
94	Distributed estimation and tracking for radio environment mapping. , 2014, , .		2
95	Dynamic pollutant plume front tracking and monitoring by a single mobile robot. , 2017, , .		2
96	Multi-Robot Guided Policy Search for Learning Decentralized Swarm Control. , 2021, 5, 743-748.		2
97	Feedback Control of Frictional Dynamics. , 2006, , .		1
98	Distributed Robot-assisted Node Localization in Active Sensor Networks. , 2006, , .		1
99	Single particle dynamics and control in a sliding nanocluster system. , 2007, , .		1
100	Bio-inspired locomotion for a modular snake robot. , 2009, , .		1
101	Robust Consensus Output Tracking of Multi-Agent Systems With Directed Communications. , 2010, , .		1
102	Collective motion of planar particles and coupled lasers. , 2011, , .		1
103	Analysis and Control of Two-Layer Frenkelâ€”Kontorova Model. Chinese Physics Letters, 2011, 28, 110204.	3.3	1
104	Robotic experiments to evaluate ocean plume characteristics and structure. , 2017, , .		1
105	Simulating Fine-Scale Marine Pollution Plumes for Autonomous Robotic Environmental Monitoring. Frontiers in Robotics and AI, 2018, 5, 52.	3.2	1
106	Optimization of Merging Pedestrian Flows Based on Adaptive Dynamic Programming. , 2019, , .		1
107	Corrections to “Accurate Ambulatory Gait Analysis in Walking and Running Using Machine Learning Models” IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1046-1046.	4.9	1
108	A reduced-order analytical solution to mobile robot trajectory generation in the presence of moving obstacles. , 2004, , .		0

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109	Decentralized Coordination Control for Formation Stability of Autonomous Robotic Systems. , 2006, , .		0
110	Disturbance Attenuation of Uncertain Nonholonomic Systems in Chained Forms. , 2006, , .		0
111	Experimental testbed and distributed algorithm for cooperative driving in VII simulation. , 2006, , .		0
112	Bio-inspired motion planning algorithms for autonomous robots facilitating greater plasticity for security applications. Proceedings of SPIE, 2007, , .	0.8	0
113	Stability of coupled oscillators using Frenkel-Kontorova model. , 2009, , .		0
114	Directed motion of an atomic scale engine and stability analysis. , 2010, , .		0
115	Analysis of controlled morse type Frenkel-Kontorova model. , 2011, , .		0
116	Robust H_∞ consensus on directed networks with quantized communication. , 2012, , .		0
117	Synchronization of Coupled Laser Arrays With All-to-All and Limited Coupling Topology. , 2012, , .		0
118	Capsule Robot in Gastro-Intestinal Tract: A Case Study for Robot Programming and Navigation. , 2013, , 85-99.		0
119	Ocean Plume Tracking with Unmanned Surface Vessels: Algorithms and Experiments. , 2018, , .		0
120	Going Strong [From the Editor's Desk]. IEEE Robotics and Automation Magazine, 2021, 28, 4-6.	2.0	0
121	New Ideas, Old Tricks [From the Editor's Desk]. IEEE Robotics and Automation Magazine, 2022, 29, 4-4.	2.0	0