

Jizhong Xiao

List of Publications by Year in descending order

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Version: 2024-02-01

96
papers

1,679
citations

687220

13
h-index

526166

27
g-index

97
all docs

97
docs citations

97
times ranked

1382
citing authors

#	ARTICLE	IF	CITATIONS
1	A Linear Kalman Filter for MARG Orientation Estimation Using the Algebraic Quaternion Algorithm. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 467-481.	2.4	142
2	Vision-Based Mobile Indoor Assistive Navigation Aid for Blind People. IEEE Transactions on Mobile Computing, 2019, 18, 702-714.	3.9	127
3	Climbing the walls [robots]. IEEE Robotics and Automation Magazine, 2002, 9, 10-19.	2.2	115
4	Fast visual odometry and mapping from RGB-D data. , 2013, , .		107
5	Multirobot Tree and Graph Exploration. IEEE Transactions on Robotics, 2011, 27, 707-717.	7.3	80
6	Multi-volume occupancy grids: An efficient probabilistic 3D mapping model for micro aerial vehicles. , 2010, , .		72
7	An Assistive Navigation Framework for the Visually Impaired. IEEE Transactions on Human-Machine Systems, 2015, 45, 635-640.	2.5	69
8	A literature review of UAV 3D path planning. , 2014, , .		67
9	Robust backpropagation training algorithm for multilayered neural tracking controller. IEEE Transactions on Neural Networks, 1999, 10, 1133-1141.	4.8	53
10	Wall-climbing robot for non-destructive evaluation using impact-echo and metric learning SVM. International Journal of Intelligent Robotics and Applications, 2017, 1, 255-270.	1.6	44
11	ISANA: Wearable Context-Aware Indoor Assistive Navigation with Obstacle Avoidance for the Blind. Lecture Notes in Computer Science, 2016, , 448-462.	1.0	43
12	An open-source navigation system for micro aerial vehicles. Autonomous Robots, 2013, 34, 177-188.	3.2	42
13	Being Aware of the World: Toward Using Social Media to Support the Blind With Navigation. IEEE Transactions on Human-Machine Systems, 2015, 45, 399-405.	2.5	42
14	Semantic Indoor Navigation with a Blind-User Oriented Augmented Reality. , 2013, , .		40
15	Collaborative Mapping and Autonomous Parking for Multi-Story Parking Garage. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 1629-1639.	4.7	31
16	An open-source pose estimation system for micro-air vehicles. , 2011, , .		25
17	City Climber: a new generation of mobile robot with wall-climbing capability. , 2006, 6230, 471.		24
18	A SLAM Based Semantic Indoor Navigation System for Visually Impaired Users. , 2015, , .		21

#	ARTICLE	IF	CITATIONS
19	Rise-Rover: A wall-climbing robot with high reliability and load-carrying capacity. , 2015, , .		20
20	City-Climbers at Work. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	18
21	DSP solution for wall-climber micro-robot control using TMS320LF2407 chip. , 0, , .		17
22	Modeling and control of an under-actuated miniature crawler robot. , 0, , .		17
23	FPGA-based Control System for Miniature Robots. , 2006, , .		16
24	Adaptive Source Localization by a Mobile Robot Using Signal Power Gradient in Sensor Networks. , 2008, , .		16
25	Large-scale, real-time 3D scene reconstruction on a mobile device. Autonomous Robots, 2017, 41, 1423-1445.	3.2	16
26	Guiding attraction based random tree path planning under uncertainty: Dedicate for UAV. , 2014, , .		15
27	3D PRM based real-time path planning for UAV in complex environment. , 2012, , .		14
28	Design and Analysis of a Single-â€”Camera Omnistereo Sensor for Quadrotor Micro Aerial Vehicles (MAVs). Sensors, 2016, 16, 217.	2.1	14
29	Modular wall climbing robots with transition capability. , 2005, , .		13
30	Incremental registration of RGB-D images. , 2012, , .		13
31	An autonomous flyer photographer. , 2016, , .		13
32	CCNY Smart Cane. , 2017, , .		13
33	Assisting blind people to avoid obstacles: An wearable obstacle stereo feedback system based on 3D detection. , 2015, , .		12
34	Wall-climbing robot for visual and GPR inspection. , 2018, , .		12
35	Multi-robot tree and graph exploration. , 2009, , .		11
36	A Flooding Algorithm for Multirobot Exploration. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 850-863.	5.5	11

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37	Accelerated patch-based planar clustering of noisy range images in indoor environments for robot mapping. <i>Robotics and Autonomous Systems</i> , 2012, 60, 584-598.	3.0	11
38	A low cost outdoor assistive navigation system for blind people. , 2013, , .		11
39	Modeling and Controller Design for Multiple Mobile Robots Formation Control. , 0, , .		10
40	Aerodynamic analysis of City-Climber robots. , 2007, , .		10
41	Generating near-spherical range panoramas by fusing optical flow and stereo from a single-camera folded catadioptric rig. <i>Machine Vision and Applications</i> , 2013, 24, 133-144.	1.7	10
42	A robotic system towards concrete structure spalling and crack database. , 2017, , .		10
43	Modeling, control, and motion planning of a climbing microrobot. <i>Integrated Computer-Aided Engineering</i> , 2004, 11, 289-307.	2.5	9
44	3D Laser scan registration of dual-robot system using vision. , 2009, , .		9
45	Visual odometry with a single-camera stereo omnidirectional system. <i>Machine Vision and Applications</i> , 2019, 30, 1145-1155.	1.7	9
46	A Mobile Robot Platform with DSP-based Controller and Omnidirectional Vision System. , 0, , .		8
47	Robot localization and energy-efficient wireless communications by multiple antennas. , 2009, , .		8
48	Robust compliant assembly automation using an industrial robot. , 2011, , .		8
49	Visual semantic parameterization - To enhance blind user perception for indoor navigation. , 2013, , .		8
50	Modeling and path planning of the City-Climber robot part II: 3D path planning using mixed integer linear programming. , 2009, , .		7
51	Modeling and path planning of the City-Climber robot part I: Dynamic modeling. , 2009, , .		7
52	Three-Dimensional Path Planning of a Climbing Robot Using Mixed Integer Linear Programming. <i>Advanced Robotics</i> , 2010, 24, 2087-2118.	1.1	7
53	Fast planar clustering and polygon extraction from noisy range images acquired in indoor environments. , 2010, , .		6
54	Real-time pose estimation with RGB-D camera. , 2012, , .		6

#	ARTICLE	IF	CITATIONS
55	Generation of dynamically feasible and collision free trajectory by applying six-order Bezier curve and local optimal reshaping. , 2015, , .		6
56	GART. International Journal of Advanced Robotic Systems, 2016, 13, 1729881416671111.	1.3	6
57	Motion planning of a bipedal miniature crawling robot in hybrid configuration space. , 0, , .		5
58	Multi-sensor referenced gait control of a miniature climbing robot. , 0, , .		5
59	Minimal power control of a miniature climbing robot. , 0, , .		5
60	Biologically inspired flocking of swarms with dynamic topology in uniform environments. , 2007, , .		5
61	A robust data association for simultaneous localization and mapping in dynamic environments. , 2010, , .		5
62	Theseus gradient guide: An indoor transmitter searching approach using received signal strength. , 2011, , .		5
63	6-DoF pose localization in 3D point-cloud dense maps using a monocular camera. , 2013, , .		5
64	Attitude tracking control of a quadrotor based on linear active disturbance rejective control. , 2015, , .		5
65	Practical indoor mobile robot navigation using hybrid maps. , 2011, , .		4
66	Quadratic stability and stabilization of matrix secondâ€order timeâ€varying systems. International Journal of Robust and Nonlinear Control, 2012, 22, 2100-2110.	2.1	4
67	Robotic impact-echo Non-Destructive Evaluation based on FFT and SVM. , 2014, , .		4
68	Laser-Based Online Sliding-Window Approach for UAV Loop-Closure Detection in Urban Environments. International Journal of Advanced Robotic Systems, 2016, 13, 61.	1.3	4
69	A bio-inspired scan matching algorithm for mobile robots in outdoor environments. Assembly Automation, 2016, 36, 159-171.	1.0	4
70	Polygon-based laser scan registration by heterogeneous robots. , 2010, , .		3
71	GUMS: A generalized unified model for stereo omnidirectional vision (demonstrated via a folded) Tj ETQq1 1 0.784314 rgBT /Overlock 1/3		3
72	An Assistive Indoor Navigation System for the Visually Impaired in Multi-Floor Environments. , 2017, , .		3

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73	Improving 3D Metric GPR Imaging Using Automated Data Collection and Learning-Based Processing. IEEE Sensors Journal, 2023, 23, 4527-4539.	2.4	3
74	Combinning linear vestibulo-ocular and opto-kinetic reflex in a humanoid robot. , 2008, , .		2
75	Stable swarming by mutual interactions of Attraction/Alignment/Repulsion. , 2008, , .		2
76	Clutter-sensitive data association for simultaneous localization and mapping in robotic wireless sensor networks. , 2010, , .		2
77	Design and calibration of single-camera catadioptric omnistereo system for miniature aerial vehicles (MAVs). , 2010, , .		2
78	CityFlyer: Progress toward autonomous MAV navigation and 3D mapping. , 2011, , .		2
79	Fusing optical flow and stereo in a spherical depth panorama using a single-camera folded catadioptric rig. , 2011, , .		2
80	Obtaining the real time yaw angle using electronic compass in quadrotor systems. , 2012, , .		2
81	A non-inertial acceleration suppressor for low cost inertial measurement unit attitude estimation. , 2013, , .		2
82	Wind-turbine Blade Inspection Using Impact-Sounding Module and Acoustic Analysis. , 2019, , .		2
83	3D map construction using heterogeneous robots. , 2008, , .		1
84	Stereovision-based 3D planar surface estimation for wall-climbing robots. , 2009, , .		1
85	Empirical evaluation of a practical indoor mobile robot navigation method using hybrid maps. , 2010, , .		1
86	Multi-robot flooding algorithm for the exploration of unknown indoor environments. , 2010, , .		1
87	Radio source search using force field vectors weighted by received signal strength gradients. , 2011, , .		1
88	Multicode Sparse-Sequence CDMA: Approach to Optimum Performance by Linearly Complex WSLAS Detectors. Wireless Personal Communications, 2013, 71, 1049-1056.	1.8	1
89	A single-camera omni-stereo vision system for 3D perception of micro aerial vehicles (MAVs). , 2013, , .		1
90	Fleet size of multi-robot systems for exploration of structured environments. , 2014, , .		1

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91	A handwritten digit recognition method based on hybrid features extraction and its application to a temperature sensor array. , 2016, , .		1
92	Visual-GPS: Ego-Downward and Ambient Video Based Person Location Association. , 2019, , .		1
93	POLYGON-BASED 3D SCAN REGISTRATION WITH DUAL-ROBOTS IN STRUCTURED INDOOR ENVIRONMENTS. International Journal of Robotics and Automation, 2012, 27, .	0.1	1
94	A least-square-based approach to improve the accuracy of laser ranging. , 2014, , .		0
95	Adaptive source search in a gradient field. Robotica, 2015, 33, 1589-1608.	1.3	0
96	Fundamental Theories and Practice in Service Robotics. Mathematical Problems in Engineering, 2015, 2015, 1-2.	0.6	0