Shuo Wang

List of Publications by Year
in descending order

84	1,609	361296	330025
papers	citations	20	37
		h-index	g-index

84	84	84	1012
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Development of a Biomimetic Robotic Fish and Its Control Algorithm. IEEE Transactions on Systems, Man, and Cybernetics, 2004, 34, 1798-1810.	5.5	368
2	Overview of deep learning. , 2016, , .		111
3	Development of an Underwater Manipulator and Its Free-Floating Autonomous Operation. IEEE/ASME Transactions on Mechatronics, 2016, 21, 815-824.	3.7	70
4	Efficient underwater image and video enhancement based on Retinex. Signal, Image and Video Processing, 2019, 13, 1011-1018.	1.7	60
5	A Paradigm for Path Following Control of a Ribbon-Fin Propelled Biomimetic Underwater Vehicle. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 482-493.	5.9	56
6	A Bio-Inspired Robot With Undulatory Fins and Its Control Methods. IEEE/ASME Transactions on Mechatronics, 2017, 22, 206-216.	3.7	52
7	Real-Time Dynamic Dubins-Helix Method for 3-D Trajectory Smoothing. IEEE Transactions on Control Systems Technology, 2015, 23, 730-736.	3.2	51
8	A Sensorless Hand Guiding Scheme Based on Model Identification and Control for Industrial Robot. IEEE Transactions on Industrial Informatics, 2019, 15, 5204-5213.	7.2	48
9	Underwater Bioinspired Propulsion: From Inspection to Manipulation. IEEE Transactions on Industrial Electronics, 2020, 67, 7629-7638.	5.2	48
10	Development and Motion Control of Biomimetic Underwater Robots: A Survey. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 833-844.	5.9	48
11	Path Generation of Autonomous Approach to a Moving Ship for Unmanned Vehicles. IEEE Transactions on Industrial Electronics, 2015, 62, 5619-5629.	5.2	40
12	Floating Autonomous Manipulation of the Underwater Biomimetic Vehicle-Manipulator System: Methodology and Verification. IEEE Transactions on Industrial Electronics, 2018, 65, 4861-4870.	5.2	39
13	In-Hand Object Localization Using a Novel High-Resolution Visuotactile Sensor. IEEE Transactions on Industrial Electronics, 2022, 69, 6015-6025.	5.2	33
14	Vision-Based Autonomous Hovering for the Biomimetic Underwater Robotâ€"RobCutt-II. IEEE Transactions on Industrial Electronics, 2019, 66, 8578-8588.	5.2	27
15	Self-Attention Based Visual-Tactile Fusion Learning for Predicting Grasp Outcomes. IEEE Robotics and Automation Letters, 2020, 5, 5827-5834.	3.3	27
16	Three-Dimensional Helical Path Following of an Underwater Biomimetic Vehicle-Manipulator System. IEEE Journal of Oceanic Engineering, 2018, 43, 391-401.	2.1	25
17	Coordinated Control of Underwater Biomimetic Vehicleâ€"Manipulator System for Free Floating Autonomous Manipulation. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 4793-4803.	5.9	24
18	Solving Trajectory Optimization Problems in the Presence of Probabilistic Constraints. IEEE Transactions on Cybernetics, 2020, 50, 4332-4345.	6.2	24

#	Article	IF	Citations
19	Grasping Marine Products With Hybrid-Driven Underwater Vehicle-Manipulator System. IEEE Transactions on Automation Science and Engineering, 2020, , 1-12.	3.4	24
20	Development and Control of an Underwater Vehicle–Manipulator System Propelled by Flexible Flippers for Grasping Marine Organisms. IEEE Transactions on Industrial Electronics, 2022, 69, 3898-3908.	5.2	23
21	Target Tracking Control of a Biomimetic Underwater Vehicle Through Deep Reinforcement Learning. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 3741-3752.	7.2	22
22	Real-Time Underwater Onboard Vision Sensing System for Robotic Gripping. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	21
23	Real-Time Perception and Positioning for Creature Picking of an Underwater Vehicle. IEEE Transactions on Vehicular Technology, 2020, 69, 3783-3792.	3.9	20
24	A robotic shared control teleoperation method based on learning from demonstrations. International Journal of Advanced Robotic Systems, 2019, 16, 172988141985742.	1.3	19
25	Design and Kinetic Analysis of a Biomimetic Underwater Vehicle with Two Undulating Long-fins. Zidonghua Xuebao/Acta Automatica Sinica, 2014, 39, 1330-1338.	0.3	19
26	Fast Generation of Chance-Constrained Flight Trajectory for Unmanned Vehicles. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 1028-1045.	2.6	18
27	Design and Locomotion Control of a Dactylopteridae-Inspired Biomimetic Underwater Vehicle With Hybrid Propulsion. IEEE Transactions on Automation Science and Engineering, 2022, 19, 2054-2066.	3.4	18
28	Prediction-Based Seabed Terrain Following Control for an Underwater Vehicle-Manipulator System. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 4751-4760.	5.9	17
29	Hydrodynamics of a Flexible Flipper for an Underwater Vehicle-Manipulator System. IEEE/ASME Transactions on Mechatronics, 2022, 27, 868-879.	3.7	16
30	Centrosymmetric‐and Axisymmetric‐Patterned Flexible Tactile Sensor for Roughness and Slip Intelligent Recognition. Advanced Intelligent Systems, 2022, 4, 2100072.	3.3	16
31	Design and Kinetic Analysis of a Biomimetic Underwater Vehicle with Two Undulating Long-fins. Zidonghua Xuebao/Acta Automatica Sinica, 2013, 39, 1330-1338.	1.5	15
32	Path following for a biomimetic underwater vehicle based on ADRC. , 2017, , .		15
33	Hydrodynamic Modeling and Parameter Identification of a Bionic Underwater Vehicle: RobDact. Cyborg and Bionic Systems, 2022, 2022, .	3.7	15
34	Course and Depth Control for a Biomimetic Underwater Vehicle - RobCutt-I. International Journal of Offshore and Polar Engineering, 2015, 25, 81-87.	0.3	14
35	Parameter estimation survey for multi-joint robot dynamic calibration case study. Science China Information Sciences, 2019, 62, 1.	2.7	13
36	A LiDAR SLAM With PCA-Based Feature Extraction and Two-Stage Matching. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	2.4	13

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37	Multi-critic DDPG Method and Double Experience Replay. , 2018, , .		12
38	Motion control for an underwater robotic fish with two undulating long-fins. , 2009, , .		10
39	Disturbance Rejection Control for Underwater Free-Floating Manipulation. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3742-3750.	3.7	8
40	Meta-Residual Policy Learning: Zero-Trial Robot Skill Adaptation via Knowledge Fusion. IEEE Robotics and Automation Letters, 2022, 7, 3656-3663.	3.3	8
41	A Novel Sparse Geometric 3-D LiDAR Odometry Approach. IEEE Systems Journal, 2021, 15, 1390-1400.	2.9	7
42	Modeling and analysis of an underwater biomimetic vehicle-manipulator system. Science China Information Sciences, 2022, 65, 1.	2.7	7
43	Thrust analysis of the undulating ribbon-fin for biomimetic underwater robots. , 2011, , .		6
44	Development of a Propeller with Undulating Fins and Its Characteristics. , 2019, , .		6
45	Multimodal Unknown Surface Material Classification and Its Application to Physical Reasoning. IEEE Transactions on Industrial Informatics, 2022, 18, 4406-4416.	7.2	6
46	Self-Supervised Contact Geometry Learning by GelStereo Visuotactile Sensing. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	2.4	5
47	SAU-RFC hand: a novel self-adaptive underactuated robot hand with rigid-flexible coupling fingers. Robotica, 2023, 41, 511-529.	1.3	5
48	Visual servo control for dynamic hovering of an underwater biomimetic vehicle-manipulator system by neural network. , 2017, , .		4
49	Locomotion Control of a Hybrid Propulsion Biomimetic Underwater Vehicle via Deep Reinforcement Learning. , 2021, , .		4
50	Hierarchical Learning from Demonstrations for Long-Horizon Tasks. , 2021, , .		4
51	Position Control of an Underwater Biomimetic Vehicle-Manipulator System via Reinforcement Learning. , 2020, , .		4
52	RobCutt: A Framework of Underwater Biomimetic Vehicle-Manipulator System for Autonomous Interventions. , 2018, , .		3
53	ROS-Based Depth Control for Hybrid-Driven Underwater Vehicle-Manipulator System. , 2019, , .		3
54	Programming by Visual Demonstration for Pick-and-Place Tasks using Robot Skills. , 2019, , .		3

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55	Learning Category-level Implicit 3D Rotation Representations for 6D Pose Estimation from RGB Images. , 2019, , .		3
56	Generalized Visual-Tactile Transformer Network for Slip Detection. IFAC-PapersOnLine, 2020, 53, 9529-9534.	0.5	3
57	Data-Driven Hydrodynamic Modeling for a Flippers-Driven Underwater Vehicle-Manipulator System. , 2020, , .		3
58	Picking out the Impurities: Attention-based Push-Grasping in Dense Clutter. Robotica, 2023, 41, 470-485.	1.3	3
59	Motion characterization of a relaxor-based single crystals actuator for Na-nomanipulation system. , 2017, , .		2
60	Piezoelectric Single Crystal-based Nano-scale Actuator and Its Amplifying Mechanism. , 2019, , .		2
61	Real-world Robot Reaching Skill Learning Based on Deep Reinforcement Learning. , 2020, , .		2
62	A Novel Heterogeneous Actor-critic Algorithm with Recent Emphasizing Replay Memory. International Journal of Automation and Computing, 2021, 18, 619-631.	4.5	2
63	Mechanical Design and Dynamic Compliance Control of Lightweight Manipulator. International Journal of Automation and Computing, 2021, 18, 926-934.	4.5	2
64	Six-Dimensional Target Pose Estimation for Robot Autonomous Manipulation: Methodology and Verification. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 186-197.	2.6	2
65	Path Planning Based on Segmented Bezier Curves and A* Algorithm for Mobile Robot. , 2021, , .		2
66	Autonomous Skill Learning of Water Polo Ball Heading for a Robotic Fish: Curriculum and Verification. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 865-876.	2.6	2
67	A laser scanning data acquisition and display system based on ROS. , 2014, , .		1
68	Hybrid wireless sensor network for rescue site monitoring after earthquake. Journal of Applied Remote Sensing, 2016, 10, 036020.	0.6	1
69	Robot teleoperation system based on SVDD. , 2017, , .		1
70	A Fusion Measurement Method Based on Kalman Filter with Improved State Block and Neural Network for Nanometer Displacement. , 2018, , .		1
71	Conservative Policy Gradient in Multi-critic Setting. , 2019, , .		1
72	Dynamic Surface Control for an Underactuated Underwater Biomimetic Vehicle-Manipulator System. , 2021, , .		1

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73	Finite-time sliding mode control for UVMS via T-S fuzzy approach. Discrete and Continuous Dynamical Systems - Series S, 2021, .	0.6	1
74	A path planning and following algorithm of observing targets for the UVMS Robocutt-I. , 2014, , .		0
75	Automated Axis Alignment for a Nanomanipulator inside SEM and Its Error Optimization. Scanning, 2017, 2017, 1-8.	0.7	0
76	Design and Implementation of a Cluster Control System for Multi-Biomimetic Robotic Fish. , 2018, , .		0
77	Self-modeling Tracking Control of Crawler Fire Fighting Robot Based on Causal Network*. , 2019, , .		0
78	PSO-based Optimal Formation of Multiple Biomimetic Underwater Vehicles. , 2020, , .		0
79	Omnidirectional Drift Control of an Underwater Biomimetic Vehicle-Manipulator System via Reinforcement Learning. , 2021, , .		0
80	Disturbance Observer Based Control for an Underwater Biomimetic Vehicle-Manipulator System with Mismatched Disturbances. , 2021, , .		0
81	Development and initial experiments of an intelligent Dual-Arm mobile robot - Baymax-I. , 2021, , .		0
82	SOZIL: Self-Optimal Zero-Shot Imitation Learning. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 2077-2088.	2.6	0
83	Micro-displacement Amplifying Mechanism of a Piezoelectric Single Crystal Actuator and Its Motion Characterization. , 2020, , .		0
84	A Tight Filtering and Smoothing Fusion Method With Feature Tracking for LiDAR Odometry. IEEE Sensors Journal, 2022, 22, 13622-13631.	2.4	0