Yuanchang Liu

List of Publications by Year
in descending order

62 papers	1,679 citations	331670 21 h-index	289244 40 g-index
62 all docs	62 docs citations	62 times ranked	942 citing authors

#	Article	IF	Citations
1	Filtering based multi-sensor data fusion algorithm for a reliable unmanned surface vehicle navigation. Journal of Marine Engineering and Technology, 2023, 22, 67-83.	4.1	16
2	Ocean Explorations Using Autonomy: Technologies, Strategies and Applications. Offshore Robotics, 2022, , 35-58.	2.7	11
3	Anisotropic GPMP2: A Fast Continuous-Time Gaussian Processes Based Motion Planner for Unmanned Surface Vehicles in Environments With Ocean Currents. IEEE Transactions on Automation Science and Engineering, 2022, 19, 3914-3931.	5.2	13
4	Machining-path mapping from free-state to clamped-state for thin-walled parts. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2022, 236, 1305-1316.	2.4	3
5	A bioinspired bubble removal method in microchannels based on angiosperm xylem embolism repair. Microsystems and Nanoengineering, 2022, 8, 34.	7.0	2
6	A novel deep-learning based surrogate modeling of stochastic electric vehicle traffic user equilibrium in low-carbon electricityâ€“transportation nexus. Applied Energy, 2022, 315, 118961.	10.1	12
7	Uninterrupted path planning system for Multi-USV sampling mission in a cluttered ocean environment. Ocean Engineering, 2022, 254, 111328.	4.3	35
8	A novel path following approach for autonomous ships based on fast marching method and deep reinforcement learning. Ocean Engineering, 2022, 257, 111495.	4.3	14
9	Practical Moving Target Detection in Maritime Environments Using Fuzzy Multi-sensor Data Fusion. International Journal of Fuzzy Systems, 2021, 23, 1860-1878.	4.0	5
10	Navigating highâ€speed unmanned surface vehicles: System approach and validations. Journal of Field Robotics, 2021, 38, 619-652.	6.0	11
11	Unsupervised learning based coordinated multi-task allocation for unmanned surface vehicles. Neurocomputing, 2021, 420, 227-245.	5.9	27
12	Nanodelivery vehicles induce remote biochemical changes in vivo. Nanoscale, 2021, 13, 12623-12633.	5.6	6
13	Adaptive and extendable control of unmanned surface vehicle formations using distributed deep reinforcement learning. Applied Ocean Research, 2021, 110, 102590.	4.1	21
14	A Multi-Sensor Environmental Perception System for an Automatic Electric Shovel Platform. Sensors, 2021, 21, 4355.	3.8	4
15	Optimised MOPSO with the grey relationship analysis for the multi-criteria objective energy dispatch of a novel SOFC-solar hybrid CCHP residential system in the UK. Energy Conversion and Management, 2021, 243, 114406.	9.2	32
16	Two-phase energy efficiency optimisation for ships using parallel hybrid electric propulsion system. Ocean Engineering, 2021, 238, 109733.	4.3	31
17	A semi-supervised deep learning model for ship encounter situation classification. Ocean Engineering, 2021, 239, 109824.	4.3	9
18	WODIS: Water Obstacle Detection Network Based on Image Segmentation for Autonomous Surface Vehicles in Maritime Environments. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	18

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19	A Novel Design of a Solid Oxide Fuel Cell-Based Combined Cooling, Heat and Power Residential System in the U.K.. IEEE Transactions on Industry Applications, 2021, 57, 805-813.	4.9	14
20	Near-optimal energy management for plug-in hybrid fuel cell and battery propulsion using deep reinforcement learning. International Journal of Hydrogen Energy, 2021, 46, 40022-40040.	7.1	26
21	Novel sinuous band microelectrode array for electrochemical amperometric sensing. Electrochemistry Communications, 2021, 133, 107159.	4.7	2
22	Deep Learning-Based Maritime Environment Segmentation for Unmanned Surface Vehicles Using Superpixel Algorithms. Journal of Marine Science and Engineering, 2021, 9, 1329.	2.6	8
23	ShorelineNet: An Efficient Deep Learning Approach for Shoreline Semantic Segmentation for Unmanned Surface Vehicles. , 2021, , .		18
24	On Aerial Robots with Grasping and Perching Capabilities: A Comprehensive Review. Frontiers in Robotics and AI, 2021, 8, 739173.	3.2	16
25	A novel ship energy efficiency model considering random environmental parameters. Journal of Marine Engineering and Technology, 2020, 19, 215-228.	4.1	22
26	A microfluidic platform culturing two cell lines paralleled under in-vivo like fluidic microenvironment for testing the tumor targeting of nanoparticles. Talanta, 2020, 208, 120355.	5.5	6
27	A ship movement classification based on Automatic Identification System (AIS) data using Convolutional Neural Network. Ocean Engineering, 2020, 218, 108182.	4.3	55
28	Sensitive immunoassay of cardiac troponin I using an optimized microelectrode array in a novel integrated microfluidic electrochemical device. Analytical and Bioanalytical Chemistry, 2020, 412, 8325-8338.	3.7	6
29	A Locking Sweeping Method Based Path Planning for Unmanned Surface Vehicles in Dynamic Maritime Environments. Journal of Marine Science and Engineering, 2020, 8, 887.	2.6	7
30	Controlling a cargo ship without human experience using deep Q-network. Journal of Intelligent and Fuzzy Systems, 2020, 39, 7363-7379.	1.4	5
31	Adaptive Localisation for Unmanned Surface Vehicles Using IMU-Interacting Multiple Model. , 2020, , .		4
32	A novel path planning approach for smart cargo ships based on anisotropic fast marching. Expert Systems With Applications, 2020, 159, 113558.	7.6	25
33	Ultrasonic measurement of lubricant film thickness distribution of journal bearing. Review of Scientific Instruments, 2020, 91, 065111.	1.3	7
34	Global tool axis vector optimization based on the minimum angular acceleration of rotary axes. International Journal of Advanced Manufacturing Technology, 2020, 107, 2121-2136.	3.0	5
35	Intelligent Tracking of Moving Ships in Constrained Maritime Environments Using AIS. Cybernetics and Systems, 2019, 50, 539-555.	2.5	8
36	Decision-Making for the Autonomous Navigation of Maritime Autonomous Surface Ships Based on Scene Division and Deep Reinforcement Learning. Sensors, 2019, 19, 4055.	3.8	61

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37	Intelligent multi-task allocation and planning for multiple unmanned surface vehicles (USVs) using self-organising maps and fast marching method. Information Sciences, 2019, 496, 180-197.	6.9	52
38	A Robust Localization Method for Unmanned Surface Vehicle (USV) Navigation Using Fuzzy Adaptive Kalman Filtering. IEEE Access, 2019, 7, 46071-46083.	4.2	48
39	Smartphone-app based point-of-care testing for myocardial infarction biomarker cTnI using an autonomous capillary microfluidic chip with self-aligned on-chip focusing (SOF) lenses. Lab on A Chip, 2019, 19, 1797-1807.	6.0	37
40	A novel design of solid oxide fuel cell-based combined cooling, heat and power residential system in the UK. , 2019, , .		1
41	Collision Avoidance for Unmanned Surface Vehicles based on COLREGS. , 2019, , .		4
42	Learn to Navigate: Cooperative Path Planning for Unmanned Surface Vehicles Using Deep Reinforcement Learning. IEEE Access, 2019, 7, 165262-165278.	4.2	82
43	Smoothed A* algorithm for practical unmanned surface vehicle path planning. Applied Ocean Research, 2019, 83, 9-20.	4.1	174
44	Modelling and control of autonomous marine vehicles. , 2019, , 1-30.		0
45	A survey of formation control and motion planning of multiple unmanned vehicles. Robotica, 2018, 36, 1019-1047.	1.9	114
46	Efficient multi-task allocation and path planning for unmanned surface vehicle in support of ocean operations. Neurocomputing, 2018, 275, 1550-1566.	5.9	72
47	Developing an Energy Effective Autonomous USV for Undertaking Missions at the Highlands of Peru. , 2018, , .		4
48	The Design of an Embedded Multi-Sensor Data Fusion System for Unmanned Surface Vehicle Navigation Based on Real Time Operating System. , 2018, , .		2
49	One-step selective-wettability modification of PMMA microfluidic devices by using controllable gradient UV irradiation (CGUI). Sensors and Actuators B: Chemical, 2018, 273, 1508-1518.	7.8	11
50	Predictive navigation of unmanned surface vehicles in a dynamic maritime environment when using the fast marching method. International Journal of Adaptive Control and Signal Processing, 2017, 31, 464-488.	4.1	25
51	A multi-layered fast marching method for unmanned surface vehicle path planning in a time-variant maritime environment. Ocean Engineering, 2017, 129, 301-317.	4.3	113
52	A microfluidic design to provide a stable and uniform in vitro microenvironment for cell culture inspired by the redundancy characteristic of leaf areoles. Lab on A Chip, 2017, 17, 3921-3933.	6.0	20
53	The fast marching method based intelligent navigation of an unmanned surface vehicle. Ocean Engineering, 2017, 142, 363-376.	4.3	65
54	Aspects of a reliable autonomous navigation and guidance system for an unmanned surface vehicle. , 2016, , .		0

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55	A device mimicking the biomechanical characteristics of crocodile skull for lumbar fracture reduction. Bioinspiration and Biomimetics, 2016, 11, 056004.	2.9	0
56	The angle guidance path planning algorithms for unmanned surface vehicle formations by using the fast marching method. Applied Ocean Research, 2016, 59, 327-344.	4.1	78
57	A bionic MIS device for lumbar fracture reduction. , 2016, , .		0
58	Wide-ranging radar simulation data generation method based on multi-scale electronic charts in a maritime simulator. Journal of Marine Engineering and Technology, 2016, 15, 47-56.	4.1	0
59	A practical path planning and navigation algorithm for an unmanned surface vehicle using the fast marching algorithm. , 2015, , .		15
60	A two-layered fast marching path planning algorithm for an unmanned surface vehicle operating in a dynamic environment. , 2015, , .		3
61	Path planning algorithm for unmanned surface vehicle formations in a practical maritime environment. Ocean Engineering, 2015, 97, 126-144.	4.3	193
62	Robust trajectory tracking control for unmanned surface vessels under motion constraints and environmental disturbances. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 0, , 147509022110396.	0.5	1