Jinwhan Kim

List of Publications by Year
in descending order

133 papers	1,656 citations	304743 22 h-index	361022 35 g-index
133 all docs	133 docs citations	133 times ranked	1370 citing authors

#	Article	IF	Citations
1	Indirect adaptive control of an autonomous underwater vehicle-manipulator system for underwater manipulation tasks. Ocean Engineering, 2012, 54, 233-243.	4.3	106
2	DOTS: A Propagation Delay-Aware Opportunistic MAC Protocol for Mobile Underwater Networks. IEEE Transactions on Mobile Computing, 2014, 13, 766-782.	5.8	87
3	Path optimization for marine vehicles in ocean currents using reinforcement learning. Journal of Marine Science and Technology, 2016, 21, 334-343.	2.9	79
4	Integral sliding mode controller for precise manoeuvring of autonomous underwater vehicle in the presence of unknown environmental disturbances. International Journal of Control, 2015, 88, 2055-2065.	1.9	69
5	Autonomous collision detection and avoidance for ARAGON USV: Development and field tests. Journal of Field Robotics, 2020, 37, 987-1002.	6.0	64
6	Coordinated motion control in task space of an autonomous underwater vehicle–manipulator system. Ocean Engineering, 2015, 104, 155-167.	4.3	54
7	Comparison Between Nonlinear Filtering Techniques for Spiraling Ballistic Missile State Estimation. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 313-328.	4.7	51
8	Efficient COLREG-Compliant Collision Avoidance in Multi-Ship Encounter Situations. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1899-1911.	8.0	48
9	Precision navigation and mapping under bridges with an unmanned surface vehicle. Autonomous Robots, 2015, 38, 349-362.	4.8	45
10	Predictive Evaluation of Ship Collision Risk Using the Concept of Probability Flow. IEEE Journal of Oceanic Engineering, 2017, 42, 836-845.	3.8	44
11	Coastal SLAM With Marine Radar for USV Operation in GPS-Restricted Situations. IEEE Journal of Oceanic Engineering, 2019, 44, 300-309.	3.8	43
12	Nano carbon/fluoroelastomer composite bipolar plate for a vanadium redox flow battery (VRFB). Composite Structures, 2017, 159, 220-227.	5.8	38
13	In‐water visual ship hull inspection using a hover‐capable underwater vehicle with stereo vision. Journal of Field Robotics, 2019, 36, 531-546.	6.0	35
14	Particle Filter for Ballistic Target Tracking with Glint Noise. Journal of Guidance, Control, and Dynamics, 2010, 33, 1918-1921.	2.8	31
15	A Comparison of Nonlinear Filter Algorithms for Terrain-referenced Underwater Navigation. International Journal of Control, Automation and Systems, 2018, 16, 2977-2989.	2.7	29
16	Efficient image mosaicing for multi-robot visual underwater mapping. Pattern Recognition Letters, 2014, 46, 20-26.	4.2	28
17	Precise Localization and Mapping in Indoor Parking Structures via Parameterized SLAM. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 4415-4426.	8.0	28
18	A microwave foaming method for fabricating glass fiber reinforced phenolic foam. Composite Structures, 2016, 152, 239-246.	5.8	26

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19	Passive target tracking of marine traffic ships using onboard monocular camera for unmanned surface vessel. Electronics Letters, 2015, 51, 987-989.	1.0	22
20	A robust loop-closure method for visual SLAM in unstructured seafloor environments. Autonomous Robots, 2016, 40, 1095-1109.	4.8	22
21	Development of an Unmanned Surface Vehicle System for the 2014 Maritime RobotX Challenge. Journal of Field Robotics, 2017, 34, 644-665.	6.0	22
22	Three-dimensional Visual Mapping of Underwater Ship Hull Surface Using Piecewise-planar SLAM. International Journal of Control, Automation and Systems, 2020, 18, 564-574.	2.7	22
23	Armless underwater manipulation using a small deployable agent vehicle connected by a smart cable. Ocean Engineering, 2013, 70, 149-159.	4.3	21
24	Durability of graphite coated carbon composite bipolar plates for vanadium redox flow batteries. Composite Structures, 2015, 134, 106-113.	5.8	21
25	Experimental validation of a velocity obstacle based collision avoidance algorithm for unmanned surface vehicles. IFAC-PapersOnLine, 2019, 52, 329-334.	0.9	21
26	Persistent automatic tracking of multiple surface vessels by fusing radar and lidar. , 2017, , .		19
27	GPS-less Coastal Navigation using Marine Radar for USV Operation. IFAC-PapersOnLine, 2016, 49, 598-603.	0.9	17
28	AUV-Based Multi-View Scanning Method for 3-D Reconstruction of Underwater Object Using Forward Scan Sonar. IEEE Sensors Journal, 2020, 20, 1592-1606.	4.7	17
29	Robust Loop Closure Method for Multi-Robot Map Fusion by Integration of Consistency and Data Similarity. IEEE Robotics and Automation Letters, 2020, 5, 5701-5708.	5.1	16
30	Trajectory Design of Underwater Gliders for Maximum Advance Speed in Finite-Depth Water. Journal of Guidance, Control, and Dynamics, 2018, 41, 742-750.	2.8	15
31	Intent inference of ship maneuvering for automatic ship collision avoidance. IFAC-PapersOnLine, 2018, 51, 384-388.	0.9	15
32	Probabilistic modeling of ship powering performance using full-scale operational data. Applied Ocean Research, 2019, 82, 1-9.	4.1	15
33	Comparison Between Three Spiraling Ballistic Missile State Estimators. , 2008, , .		14
34	Robust Adaptive Tracking Control of Autonomous Underwater Vehicle-Manipulator Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	1.6	14
35	Task space-based control of an underwater robotic system for position keeping in ocean currents. Advanced Robotics, 2014, 28, 1109-1119.	1.8	14
36	Sensor fusion of two sonar devices for underwater 3D mapping with an AUV. Autonomous Robots, 2021, 45, 543.	4.8	14

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37	Efficient multi-agent task allocation for collaborative route planning with multiple unmanned vehicles. IFAC-PapersOnLine, 2017, 50, 3580-3585.	0.9	13
38	Motion Models for use with the Maneuvering Ballistic Missile Tracking Estimators. , 2010, , .		12
39	Probabilistic quantification of ship collision risk considering trajectory uncertainties. IFAC-PapersOnLine, 2016, 49, 109-114.	0.9	12
40	Lidar-guided autonomous landing of an aerial vehicle on a ground vehicle. , 2017, , .		12
41	Three-Dimensional Reconstruction of a Marine Floating Structure With an Unmanned Surface Vessel. IEEE Journal of Oceanic Engineering, 2019, 44, 984-996.	3.8	12
42	An Explicit Data Assimilation Scheme for a Nonlinear Wave Prediction Model Based on a Pseudo-Spectral Method. IEEE Journal of Oceanic Engineering, 2016, 41, 112-122.	3.8	11
43	Robust Data Association for Multi-Object Detection in Maritime Environments Using Camera and Radar Measurements. IEEE Robotics and Automation Letters, 2021, 6, 5865-5872.	5.1	11
44	Rapid Estimation of Impaired-Aircraft Aerodynamic Parameters. Journal of Aircraft, 2010, 47, 1216-1228.	2.4	10
45	Shape optimization of the corrugated composite bipolar plate (CCBP) for vanadium redox flow batteries (VRFBs). Composite Structures, 2016, 158, 333-339.	5.8	10
46	Coordinated weathervaning control of two surface vessels in a tandem configuration. Ocean Engineering, 2017, 130, 142-155.	4.3	10
47	Selective image registration for efficient visual SLAM on planar surface structures in underwater environment. Autonomous Robots, 2019, 43, 1665-1679.	4.8	10
48	Collaborative Mission and Route Planning of Multi-vehicle Systems for Autonomous Search in Marine Environment. International Journal of Control, Automation and Systems, 2020, 18, 546-555.	2.7	10
49	Intent Inference of Ship Collision Avoidance Behavior Under Maritime Traffic Rules. IEEE Access, 2021, 9, 5598-5608.	4.2	10
50	A Framework for Stochastic Air Traffic Flow Modeling and Analysis. , 2010, , .		9
51	Development of a fluoroelastomer/glass fiber composite flow frame for a vanadium redox flow battery (VRFB). Composite Structures, 2016, 145, 113-118.	5.8	9
52	3D reconstruction of underwater objects using a wide-beam imaging sonar. , 2017, , .		9
53	Powering performance analysis of full-scale ships under environmental disturbances. IFAC-PapersOnLine, 2017, 50, 2323-2328.	0.9	8
54	Semantic segmentation of urban scenes with a location prior map using lidar measurements. , 2017, , .		8

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55	Pose Estimation Considering an Uncertainty Model of Stereo Vision for In-Water Ship Hull Inspection. IFAC-PapersOnLine, 2018, 51, 400-405.	0.9	8
56	Model-referenced pose estimation using monocular vision for autonomous intervention tasks. Autonomous Robots, 2020, 44, 205-216.	4.8	8
57	Modeling Air-Traffic Service Time Uncertainties for Queuing Network Analysis. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 525-541.	4.7	7
58	Navigation of an unmanned surface vessel under bridges. , 2013, , .		7
59	Disturbance observer based terminal sliding mode control of an underwater manipulator. , 2014, , .		7
60	Autonomous detection and tracking of a surface ship using onboard monocular vision. , 2015, , .		7
61	Development of the light weight carbon composite tie bar. Composite Structures, 2015, 134, 124-131.	5.8	7
62	Fast Underwater Image Mosaicing through Submapping. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 167-187.	3.4	7
63	Enhanced Target Ship Tracking With Geometric Parameter Estimation for Unmanned Surface Vehicles. IEEE Access, 2021, 9, 39864-39872.	4.2	7
64	Trajectory Uncertainty Modeling for Queueing Analysis of the NAS. , 2008, , .		6
65	An approach towards online bathymetric SLAM. , 2011, , .		6
66	Weather-optimal control of a dynamic positioning vessel using backstepping: simulation and model experiment. IFAC-PapersOnLine, 2016, 49, 232-238.	0.9	6
67	Collision probability assessment between surface ships considering maneuver intentions. , 2017, , .		6
68	Semantic Segmentation of Marine Radar Images using Convolutional Neural Networks. , 2019, , .		6
69	Terrain-referenced Underwater Navigation using Rao-Blackwellized Particle Filter. Journal of Institute of Control, Robotics and Systems, 2013, 19, 682-687.	0.2	6
70	Intent Inference-Based Ship Collision Avoidance in Encounters With Rule-Violating Vessels. IEEE Robotics and Automation Letters, 2022, 7, 518-525.	5.1	6
71	Bearing-Constrained Formation Tracking Control of Nonholonomic Agents Without Inter-Agent Communication. , 2022, 6, 2401-2406.		6
72	Feedback Dual Controller Design and Its Application to Monocular Vision-Based Docking. Journal of Guidance, Control, and Dynamics, 2009, 32, 1134-1142.	2.8	5

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73	A null space control of an underactuated underwater vehicle-manipulator system under ocean currents. , 2012, , .		5
74	Fusing Lidar Data and Aerial Imagery with Perspective Correction for Precise Localization in Urban Canyons. , 2019, , .		5
75	Three-Dimensional Visual Mapping of Underwater Ship Hull Surface using View-based Piecewise-Planar Measurements. IFAC-PapersOnLine, 2019, 52, 384-389.	0.9	5
76	Fleet size optimization and collaborative route planning for multi-vehicle task allocation. , 2019, , .		5
77	Ice Load Generation in Time Domain Based on Ice Load Spectrum for Arctic Offshore Structures. Journal of Ocean Engineering and Technology, 2018, 32, 411-418.	1.2	5
78	Automatic Ship Collision Avoidance Algorithm based on Probabilistic Velocity Obstacle with Consideration of COLREGs. Journal of the Society of Naval Architects of Korea, 2019, 56, 75-81.	0.5	5
79	Behavior-based Control Considering the Interaction Between a Human Operator and an Autonomous Surface Vehicle. Journal of Ocean Engineering and Technology, 2019, 33, 620-626.	1.2	5
80	Onboard Estimation of Impaired Aircraft Performance Envelope. , 2011, , .		4
81	Graph theory approach for match reduction in image mosaicing. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 773.	1.5	4
82	Three-dimensional reconstruction of bridge structures above the waterline with an unmanned surface vehicle. , 2014, , .		4
83	Nonlinear filtering for terrain-referenced underwater navigation with an acoustic altimeter. , 2014, , .		4
84	Relative navigation with passive underwater acoustic sensing. , 2015, , .		4
85	Efficient visual SLAM using selective image registration for autonomous inspection of underwater structures. , 2016, , .		4
86	Three-dimensional reconstruction of a semi-submersible offshore platform with an unmanned surface vehicle. , 2016, , .		4
87	Online underwater optical mapping for trajectories with gaps. Intelligent Service Robotics, 2016, 9, 217-229.	2.6	4
88	Automatic waterline detection and 3D reconstruction in model ship tests using stereo vision. Electronics Letters, 2019, 55, 527-529.	1.0	4
89	Tracking of Spiraling Reentry Vehicles with Varying Frequency using the Unscented Kalman Filter. , 2010, , .		3
90	Underwater visual SLAM with loop-closure using image-to-image link recovery. , 2015, , .		3

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91	Constrained motion planning for robot manipulators using local geometric information. Advanced Robotics, 2015, 29, 1611-1623.	1.8	3
92	Semantic segmentation of urban scenes with enhanced spatial contexts. , 2016, , .		3
93	Dynamic Grid Adaptation for Panel-Based Bathymetric SLAM. , 2019, , .		3
94	Automatic target tracking with time-delayed measurements for unmanned surface vehicles. , 2019, , .		3
95	Robust Underwater Localization Using Acoustic Image Alignment for Autonomous Intervention Systems. IEEE Access, 2022, 10, 58447-58457.	4.2	3
96	Particle Filter for Ballistic Target Tracking with Glint Noise. , 2010, , .		2
97	Beaconless navigation for mobile robots using grid line pattern. , 2013, , .		2
98	Autonomous collision avoidance for unmanned surface ships using onboard monocular vision. , 2015, , .		2
99	Optimization of fish-like locomotion using hierarchical reinforcement learning. , 2015, , .		2
100	Mobile robot navigation using grid line patterns via probabilistic measurement modeling. Intelligent Service Robotics, 2016, 9, 141-151.	2.6	2
101	Longitudinal trajectory optimization of an underwater glider in finite depth water. , 2016, , .		2
102	Panel-based bathymetric SLAM with a multibeam echosounder. , 2017, , .		2
103	Scalar field reconstruction based on the Gaussian process and adaptive sampling. , 2017, , .		2
104	A quadratic-cost dual control-based approach for optimal trajectory planning under uncertainty. International Journal of Control, Automation and Systems, 2017, 15, 2253-2261.	2.7	2
105	Vehicle Localization in Urban Environment Using a 2D Online Map with Building Outlines. , 2018, , .		2
106	Ship Route Optimization Considering On-Time Arrival Probability Under Environmental Uncertainty. , 2018, , .		2
107	Icevaning control of an Arctic offshore vessel and its experimental validation. International Journal of Naval Architecture and Ocean Engineering, 2021, 13, 208-222.	2.3	2
108	Topographic SLAM Using a Single Terrain Altimeter in GNSS-Restricted Environment. IEEE Access, 2022, 10, 10806-10815.	4.2	2

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109	Mission Planning for Underwater Survey with Autonomous Marine Vehicles. Journal of Ocean Engineering and Technology, 2022, 36, 41-49.	1.2	2
110	Visual SLAM with keyframe selection for underwater structure inspection using an autonomous underwater vehicle. , 2016, , .		1
111	Nonlinear Model Predictive Control of an Autonomous Underwater Vehicle for Terrain Profile Tracking. , 2019, , .		1
112	Weighted Grid Partitioning for Panel-Based Bathymetric SLAM. , 2019, , .		1
113	Automatic Ship Collision Avoidance in Narrow Channels through Curvilinear Coordinate Transformation. Journal of the Society of Naval Architects of Korea, 2021, 58, 191-197.	0.5	1
114	COLREG-compliant ship collision avoidance in narrow channels using curvilinear coordinates. IFAC-PapersOnLine, 2021, 54, 24-29.	0.9	1
115	Ambiguity Resolution Between Constant Velocity and Coordinated Turn Models for Multimodel Target Tracking. , 2022, 6, 1-4.		1
116	An inviscid model of vortex shedding flow around an oscillating flat plate. , 2012, , .		0
117	A nonlinear task space tracking control of an underactuated underwater vehicle. , 2012, , .		0
118	On data assimilation in a pseudo-spectral wave prediction model using a Kalman filter. , 2012, , .		0
119	Match elimination using cycle basis in underwater optical mapping. , 2013, , .		0
120	Towards automatic identification of mismatched image pairs through loop constraints. Proceedings of SPIE, 2014, , .	0.8	0
121	A robust task space position tracking control of an underwater vehicle manipulator system. , 2015, , .		0
122	Planar SLAM under a semi-submersible offshore platform with an unmanned surface vehicle. , 2015, , .		0
123	Robust PID control for position tracking of an underwater manipulator. , 2015, , .		0
124	Underwater pose estimation relative to planar hull surface using stereo vision. , 2017, , .		0
125	Mismatched image identification using histogram of loop closure error for feature-based optical mapping. International Journal of Intelligent Robotics and Applications, 2019, 3, 196-206.	2.8	0
126	Robust Loop Closure Selection for Multi-robot Mapping Under Perceptual Aliasing. , 2019, , .		0

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127	Efficient fleet size optimization for task allocation of multiple unmanned vehicles. IFAC-PapersOnLine, 2019, 52, 297-301.	0.9	0
128	Guest Editorial: Marine Robotics and Control Systems. International Journal of Control, Automation and Systems, 2020, 18, 521-522.	2.7	0
129	Semantic Segmentation of Urban Scenes Using Spatial Contexts. IEEE Access, 2020, 8, 55254-55268.	4.2	0
130	Semantic Segmentation of Urban Scenes Using Location Prior Information. The Journal of Korea Robotics Society, 2017, 12, 249-257.	0.4	0
131	Probabilistic Intent Inference for Predicting the Compliance with COLREGs between Two Surface Ships. IFAC-PapersOnLine, 2020, 53, 14595-14599.	0.9	0
132	Path Optimization for Cooperative Mapping Using Multiple Robots with Limited Sensing Capabilities. , 2021, , .		0
133	Underwater localization using an optic and acoustic stereo imaging system for autonomous intervention robots. Electronics Letters, 2022, 58, 597-599.	1.0	0