Houxiang Zhang

List of Publications by Year
in descending order

67 papers	1,250 citations	471509 17 h-index	414414 32 g-index
67 all docs	67 docs citations	67 times ranked	870 citing authors

#	ARTICLE	IF	CITATIONS
1	A framework for rapid virtual prototyping: a case study with the Gunnerus research vessel. Ship Technology Research, 2023, 70, 1-13.	2.5	3
2	Incorporating Approximate Dynamics Into Data-Driven Calibrator: A Representative Model for Ship Maneuvering Prediction. IEEE Transactions on Industrial Informatics, 2022, 18, 1781-1789.	11.3	16
3	An Uncertainty-Aware Hybrid Approach for Sea State Estimation Using Ship Motion Responses. IEEE Transactions on Industrial Informatics, 2022, 18, 891-900.	11.3	12
4	Temporal Attention Convolutional Neural Network for Estimation of Icing Probability on Wind Turbine Blades. IEEE Transactions on Industrial Electronics, 2022, 69, 6371-6380.	7.9	27
5	Navigating Patterns Analysis for Onboard Guidance Support in Crossing Collision-Avoidance Operations. IEEE Intelligent Transportation Systems Magazine, 2022, 14, 62-77.	3.8	12
6	Data-Driven Modeling for Transferable Sea State Estimation Between Marine Systems. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 2561-2571.	8.0	8
7	Directional wave spectrum estimation with ship motion responses using adversarial networks. Marine Structures, 2022, 83, 103159.	3.8	7
8	Impacts of COVID-19 on Ship Behaviours in Port Area: An AIS Data-Based Pattern Recognition Approach. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 25127-25138.	8.0	13
9	A Physics-Data Co-Operative Ship Dynamic Model for a Docking Operation. IEEE Sensors Journal, 2022, 22, 11173-11183.	4.7	2
10	Virtual prototyping of offshore operations: a review. Ship Technology Research, 2021, 68, 84-101.	2.5	5
11	A Deep Learning Approach to Detect and Isolate Thruster Failures for Dynamically Positioned Vessels Using Motion Data. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	13
12	A Hybrid Approach to Motion Prediction for Ship Docking—Integration of a Neural Network Model Into the Ship Dynamic Model. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	46
13	A Co-operative Hybrid Model For Ship Motion Prediction. Modeling, Identification and Control, 2021, 42, 17-26.	1.1	5
14	Fault Detection With LSTM-Based Variational Autoencoder for Maritime Components. IEEE Sensors Journal, 2021, 21, 21903-21912.	4.7	36
15	A sensitivity quantification approach to significance analysis of thrusters in dynamic positioning operations. Ocean Engineering, 2021, 223, 108659.	4.3	2
16	A Survey of Eye Tracking in Automobile and Aviation Studies: Implications for Eye-Tracking Studies in Marine Operations. IEEE Transactions on Human-Machine Systems, 2021, 51, 87-98.	3.5	16
17	Sailing status recognition to enhance safety awareness and path routing for a commuter ferry. Ships and Offshore Structures, 2021, 16, 1-12.	1.9	9
18	Vico: An entity-component-system based co-simulation framework. Simulation Modelling Practice and Theory, 2021, 108, 102243.	3.8	17

#	Article	IF	Citations
19	Coupling of dynamic reaction forces of a heavy load crane and ship motion responses in waves. Ships and Offshore Structures, 2021, 16, 58-67.	1.9	15
20	Parameter identification of ship manoeuvring model under disturbance using support vector machine method. Ships and Offshore Structures, 2021, 16, 13-21.	1.9	19
21	A Multilevel Convolutional Recurrent Neural Network for Blade Icing Detection of Wind Turbine. IEEE Sensors Journal, 2021, 21, 20311-20323.	4.7	21
22	A Multiple-Output Hybrid Ship Trajectory Predictor With Consideration for Future Command Assumption. IEEE Sensors Journal, 2021, 21, 27124-27135.	4.7	7
23	Fault Prognostics Using LSTM Networks: Application to Marine Diesel Engine. IEEE Sensors Journal, 2021, 21, 25986-25994.	4.7	16
24	Data-driven sea state estimation for vessels using multi-domain features from motion responses. , 2021, , .		4
25	Toward Time-Optimal Trajectory Planning for Autonomous Ship Maneuvering in Close-Range Encounters. IEEE Journal of Oceanic Engineering, 2020, 45, 1219-1234.	3.8	19
26	A Neural-Network-Based Sensitivity Analysis Approach for Data-Driven Modeling of Ship Motion. IEEE Journal of Oceanic Engineering, 2020, 45, 451-461.	3.8	21
27	Visual Attention Assessment for Expert-in-the-Loop Training in a Maritime Operation Simulator. IEEE Transactions on Industrial Informatics, 2020, 16, 522-531.	11.3	17
28	Online Fault Detection in Autonomous Ferries: Using Fault-type Independent Spectral Anomaly Detection. IEEE Transactions on Instrumentation and Measurement, 2020, , 1-1.	4.7	14
29	Investigating an Integrated Sensor Fusion System for Mental Fatigue Assessment for Demanding Maritime Operations. Sensors, 2020, 20, 2588.	3.8	11
30	Flexible riser replacement operation based on advanced virtual prototyping. Ocean Engineering, 2020, 210, 107502.	4.3	3
31	A Novel Densely Connected Convolutional Neural Network for Sea-State Estimation Using Ship Motion Data. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5984-5993.	4.7	41
32	Optimizing CNN Hyperparameters for Mental Fatigue Assessment in Demanding Maritime Operations. IEEE Access, 2020, 8, 40402-40412.	4.2	14
33	A Human-Expertise Based Statistical Method for Analysis of Log Data from a Commuter Ferry. , 2020, , .		2
34	A Novel Channel and Temporal-Wise Attention in Convolutional Networks for Multivariate Time Series Classification. IEEE Access, 2020, 8, 212247-212257.	4.2	10
35	An Effective Model-based Thruster Failure Detection Method for Dynamically Positioned Ships. , 2020, , .		0
36	Incorporation of Ship Motion Prediction into Active Heave Compensation for Offshore Crane Operation. , 2020, , .		8

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37	Virtual prototyping for maritime winch design and operations based on functional mock-up interface co-simulation. Ships and Offshore Structures, 2019, 14, 261-269.	1.9	2
38	Virtual prototyping: a case study of positioning systems for drilling operations in the Barents Sea. Ships and Offshore Structures, 2019, 14, 364-373.	1.9	2
39	Validation of Data-Driven Labeling Approaches Using a Novel Deep Network Structure for Remaining Useful Life Predictions. IEEE Access, 2019, 7, 71563-71575.	4.2	22
40	Bionic Flapping Pectoral Fin with Controllable Spatial Deformation. Journal of Bionic Engineering, 2019, 16, 916-930.	5.0	12
41	A Language and Platform Independent Co-Simulation Framework Based on the Functional Mock-Up Interface. IEEE Access, 2019, 7, 109328-109339.	4.2	18
42	Modeling and Analysis of Motion Data from Dynamically Positioned Vessels for Sea State Estimation. , 2019, , .		16
43	Automatic Fault Detection for Marine Diesel Engine Degradation in Autonomous Ferry Crossing Operation. , 2019, , .		6
44	Using EEG for Mental Fatigue Assessment: A Comprehensive Look Into the Current State of the Art. IEEE Transactions on Human-Machine Systems, 2019, 49, 599-610.	3.5	48
45	Dead Reckoning of Dynamically Positioned Ships: Using an Efficient Recurrent Neural Network. IEEE Robotics and Automation Magazine, 2019, 26, 39-51.	2.0	35
46	A Step-wise Feature Selection Scheme for a Prognostics and Health Management System in Autonomous Ferry Crossing Operation. , 2019, , .		2
47	A Comprehensive Survey of Prognostics and Health Management Based on Deep Learning for Autonomous Ships. IEEE Transactions on Reliability, 2019, 68, 720-740.	4.6	59
48	Data-driven uncertainty and sensitivity analysis for ship motion modeling in offshore operations. Ocean Engineering, 2019, 179, 261-272.	4.3	40
49	An Unsupervised Reconstruction-Based Fault Detection Algorithm for Maritime Components. IEEE Access, 2019, 7, 16101-16109.	4.2	28
50	From Natural Complexity to Biomimetic Simplification: The Realization of Bionic Fish Inspired by the Cownose Ray. IEEE Robotics and Automation Magazine, 2019, 26, 27-38.	2.0	21
51	Hydrodynamic development of a bionic pectoral fin for undersea monitoring platform. Ships and Offshore Structures, 2019, 14, 91-99.	1.9	3
52	Remaining useful life predictions for turbofan engine degradation using semi-supervised deep architecture. Reliability Engineering and System Safety, 2019, 183, 240-251.	8.9	308
53	Analysis and evaluation of eye behavior for marine operation training - A pilot study. Journal of Eye Movement Research, 2019, 12, .	0.8	6
54	A Benchmarking Framework for Control Methods of Maritime Cranes Based on the Functional Mockup Interface. IEEE Journal of Oceanic Engineering, 2018, 43, 468-483.	3.8	10

#	ARTICLE	IF	CITATIONS
55	Virtual prototyping for maritime crane design and operations. Journal of Marine Science and Technology, 2018, 23, 754-766.	2.9	15
56	An Object-Oriented Modeling Approach to Virtual Prototyping of Marine Operation Systems Based on Functional Mock-Up Interface Co-Simulation. Journal of Offshore Mechanics and Arctic Engineering, 2018, 140, .	1.2	11
57	A SVM-based Sensitivity Analysis Approach for Data-Driven Modeling of Ship Motion. , 2018, , .		0
58	A Novel Sea Farm Inspection Platform for Norwegian Aquaculture Application. , 2018, , .		7
59	Neural-network-based modelling and analysis for time series prediction of ship motion. Ship Technology Research, 2017, 64, 30-39.	2.5	41
60	Concept design and simulation of a water proofing modular robot for amphibious locomotion. , 2017, , .		1
61	A screw-less solution for snake-like robot assembly and sensor integration. , 2017, , .		0
62	A FPGA based ultrasonic rail flaw detection system. , 2017, , .		4
63	Parameterization and Visualization of Marine Crane Concept Design. , 2016, , .		2
64	Analysis and modeling of sensor data for ship motion prediction. , 2016, , .		12
65	Online learning control of surface vessels for fine trajectory tracking. Journal of Marine Science and Technology, 2016, 21, 251-260.	2.9	18
66	Enhancement of Virtual Simulator for Marine Crane Operations via Haptic Device with Force Feedback. Lecture Notes in Computer Science, 2016, , 327-337.	1.3	3
67	A Novel Approach To Anti-Sway Control For Marine Shipboard Cranes. , 2013, , .		7