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	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
2	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
3	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
4	A Hybrid Approach to Motion Prediction for Ship Dockingâ€"Integration of a Neural Network Model Into the Ship Dynamic Model. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	46
5	Neural-network-based modelling and analysis for time series prediction of ship motion. Ship Technology Research, 2017, 64, 30-39.	2.5	41
6	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
7	Data-driven uncertainty and sensitivity analysis for ship motion modeling in offshore operations. Ocean Engineering, 2019, 179, 261-272.	4.3	40
8	Fault Detection With LSTM-Based Variational Autoencoder for Maritime Components. IEEE Sensors Journal, 2021, 21, 21903-21912.	4.7	36
9	Dead Reckoning of Dynamically Positioned Ships: Using an Efficient Recurrent Neural Network. IEEE Robotics and Automation Magazine, 2019, 26, 39-51.	2.0	35
10	An Unsupervised Reconstruction-Based Fault Detection Algorithm for Maritime Components. IEEE Access, 2019, 7, 16101-16109.	4.2	28
11	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
12	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
13	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
14	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
15	A Multilevel Convolutional Recurrent Neural Network for Blade Icing Detection of Wind Turbine. IEEE Sensors Journal, 2021, 21, 20311-20323.	4.7	21
16	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
17	Parameter identification of ship manoeuvring model under disturbance using support vector machine method. Ships and Offshore Structures, 2021, 16, 13-21.	1.9	19
18	Online learning control of surface vessels for fine trajectory tracking. Journal of Marine Science and Technology, 2016, 21, 251-260.	2.9	18

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19	A Language and Platform Independent Co-Simulation Framework Based on the Functional Mock-Up Interface. IEEE Access, 2019, 7, 109328-109339.	4.2	18
20	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
21	Vico: An entity-component-system based co-simulation framework. Simulation Modelling Practice and Theory, 2021, 108, 102243.	3.8	17
22	Modeling and Analysis of Motion Data from Dynamically Positioned Vessels for Sea State Estimation. , 2019, , .		16
23	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
24	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
25	Fault Prognostics Using LSTM Networks: Application to Marine Diesel Engine. IEEE Sensors Journal, 2021, 21, 25986-25994.	4.7	16
26	Virtual prototyping for maritime crane design and operations. Journal of Marine Science and Technology, 2018, 23, 754-766.	2.9	15
27	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
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	Optimizing CNN Hyperparameters for Mental Fatigue Assessment in Demanding Maritime Operations. IEEE Access, 2020, 8, 40402-40412.	4.2	14
30	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
31	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
32	Analysis and modeling of sensor data for ship motion prediction. , 2016, , .		12
33	Bionic Flapping Pectoral Fin with Controllable Spatial Deformation. Journal of Bionic Engineering, 2019, 16, 916-930.	5.0	12
34	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
35	Navigating Patterns Analysis for Onboard Guidance Support in Crossing Collision-Avoidance Operations. IEEE Intelligent Transportation Systems Magazine, 2022, 14, 62-77.	3.8	12
36	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

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37	Investigating an Integrated Sensor Fusion System for Mental Fatigue Assessment for Demanding Maritime Operations. Sensors, 2020, 20, 2588.	3.8	11
38	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
39	A Novel Channel and Temporal-Wise Attention in Convolutional Networks for Multivariate Time Series Classification. IEEE Access, 2020, 8, 212247-212257.	4.2	10
40	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
41	Data-Driven Modeling for Transferable Sea State Estimation Between Marine Systems. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 2561-2571.	8.0	8
42	Incorporation of Ship Motion Prediction into Active Heave Compensation for Offshore Crane Operation. , 2020, , .		8
43	A Novel Sea Farm Inspection Platform for Norwegian Aquaculture Application. , 2018, , .		7
44	A Novel Approach To Anti-Sway Control For Marine Shipboard Cranes. , 2013, , .		7
45	A Multiple-Output Hybrid Ship Trajectory Predictor With Consideration for Future Command Assumption. IEEE Sensors Journal, 2021, 21, 27124-27135.	4.7	7
46	Directional wave spectrum estimation with ship motion responses using adversarial networks. Marine Structures, 2022, 83, 103159.	3.8	7
47	Automatic Fault Detection for Marine Diesel Engine Degradation in Autonomous Ferry Crossing Operation. , 2019, , .		6
48	Analysis and evaluation of eye behavior for marine operation training - A pilot study. Journal of Eye Movement Research, 2019, 12, .	0.8	6
49	Virtual prototyping of offshore operations: a review. Ship Technology Research, 2021, 68, 84-101.	2.5	5
50	A Co-operative Hybrid Model For Ship Motion Prediction. Modeling, Identification and Control, 2021, 42, 17-26.	1.1	5
51	A FPGA based ultrasonic rail flaw detection system. , 2017, , .		4
52	Data-driven sea state estimation for vessels using multi-domain features from motion responses. , 2021, , .		4
53	Hydrodynamic development of a bionic pectoral fin for undersea monitoring platform. Ships and Offshore Structures, 2019, 14, 91-99.	1.9	3
54	Flexible riser replacement operation based on advanced virtual prototyping. Ocean Engineering, 2020, 210, 107502.	4.3	3

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55	A framework for rapid virtual prototyping: a case study with the Gunnerus research vessel. Ship Technology Research, 2023, 70, 1-13.	2.5	3
56	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
57	Parameterization and Visualization of Marine Crane Concept Design. , 2016, , .		2
58	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
59	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
60	A Step-wise Feature Selection Scheme for a Prognostics and Health Management System in Autonomous Ferry Crossing Operation. , 2019, , .		2
61	A sensitivity quantification approach to significance analysis of thrusters in dynamic positioning operations. Ocean Engineering, 2021, 223, 108659.	4.3	2
62	A Human-Expertise Based Statistical Method for Analysis of Log Data from a Commuter Ferry. , 2020, , .		2
63	A Physics-Data Co-Operative Ship Dynamic Model for a Docking Operation. IEEE Sensors Journal, 2022, 22, 11173-11183.	4.7	2
64	Concept design and simulation of a water proofing modular robot for amphibious locomotion. , 2017, , .		1
65	A screw-less solution for snake-like robot assembly and sensor integration. , 2017, , .		0
66	A SVM-based Sensitivity Analysis Approach for Data-Driven Modeling of Ship Motion. , 2018, , .		0
67	An Effective Model-based Thruster Failure Detection Method for Dynamically Positioned Ships. , 2020, , .		0