

Myung-Il Roh

List of Publications by Year in descending order

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122
papers

1,785
citations

331670

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345221

36
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124
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124
docs citations

124
times ranked

975
citing authors

#	ARTICLE	IF	CITATIONS
1	COLREGs-compliant multiship collision avoidance based on deep reinforcement learning. <i>Ocean Engineering</i> , 2019, 191, 106436.	4.3	133
2	Determination of the optimal operating conditions of the dual mixed refrigerant cycle for the LNG FPSO topside liquefaction process. <i>Computers and Chemical Engineering</i> , 2013, 49, 25-36.	3.8	115
3	An improved genetic algorithm for multi-floor facility layout problems having inner structure walls and passages. <i>Computers and Operations Research</i> , 2005, 32, 879-899.	4.0	107
4	An improved genetic algorithm for facility layout problems having inner structure walls and passages. <i>Computers and Operations Research</i> , 2003, 30, 117-138.	4.0	77
5	Dynamic response simulation of a heavy cargo suspended by a floating crane based on multibody system dynamics. <i>Ocean Engineering</i> , 2010, 37, 1273-1291.	4.3	76
6	Method for a simultaneous determination of the path and the speed for ship route planning problems. <i>Ocean Engineering</i> , 2018, 157, 301-312.	4.3	70
7	Deep reinforcement learning-based collision avoidance for an autonomous ship. <i>Ocean Engineering</i> , 2021, 234, 109216.	4.3	63
8	Multibody dynamic analysis of a heavy load suspended by a floating crane with constraint-based wire rope. <i>Ocean Engineering</i> , 2015, 109, 145-160.	4.3	45
9	Determination of an economical shipping route considering the effects of sea state for lower fuel consumption. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2013, 5, 246-262.	2.3	42
10	Cell-based evacuation simulation considering human behavior in a passenger ship. <i>Ocean Engineering</i> , 2012, 53, 138-152.	4.3	41
11	Combined discrete event and discrete time simulation framework and its application to the block erection process in shipbuilding. <i>Advances in Engineering Software</i> , 2010, 41, 656-665.	3.8	35
12	Integrated simulation framework for the process planning of ships and offshore structures. <i>Robotics and Computer-Integrated Manufacturing</i> , 2010, 26, 430-453.	9.9	34
13	Review of the multibody dynamics in the applications of ships and offshore structures. <i>Ocean Engineering</i> , 2018, 167, 65-76.	4.3	30
14	Estimation of ship operational efficiency from AIS data using big data technology. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2020, 12, 440-454.	2.3	30
15	Passenger evacuation simulation considering the heeling angle change during sinking. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2019, 11, 329-343.	2.3	28
16	Dynamic simulation of the wireline riser tensioner system for a mobile offshore drilling unit based on multibody system dynamics. <i>Ocean Engineering</i> , 2015, 106, 485-495.	4.3	27
17	Dynamic response simulation of an offshore wind turbine suspended by a floating crane. <i>Ships and Offshore Structures</i> , 2015, 10, 621-634.	1.9	26
18	Ship route planning in Arctic Ocean based on POLARIS. <i>Ocean Engineering</i> , 2021, 234, 109297.	4.3	25

#	ARTICLE	IF	CITATIONS
19	Expert system based on the arrangement evaluation model for the arrangement design of a submarine. Expert Systems With Applications, 2015, 42, 8731-8744.	7.6	23
20	Multibody system dynamics simulator for process simulation of ships and offshore plants in shipyards. Advances in Engineering Software, 2015, 85, 12-25.	3.8	23
21	An initial hull structural modeling system for computer-aided process planning in shipbuilding. Advances in Engineering Software, 2006, 37, 457-476.	3.8	22
22	Optimal Design of Liquefaction Cycles of Liquefied Natural Gas Floating, Production, Storage, and Offloading Unit Considering Optimal Synthesis. Industrial & Engineering Chemistry Research, 2013, 52, 5341-5356.	3.7	22
23	Advanced ship evacuation analysis using a cell-based simulation model. Computers in Industry, 2013, 64, 80-89.	9.9	22
24	Prediction of Ocean Weather Based on Denoising AutoEncoder and Convolutional LSTM. Journal of Marine Science and Engineering, 2020, 8, 805.	2.6	22
25	Dynamic Effect of a Flexible Riser in a Fully Connected Semisubmersible Drilling Rig Using the Absolute Nodal Coordinate Formulation. Journal of Offshore Mechanics and Arctic Engineering, 2017, 139, .	1.2	21
26	A block transportation scheduling system considering a minimisation of travel distance without loading of and interference between multiple transporters. International Journal of Production Research, 2011, 49, 3231-3250.	7.5	20
27	An efficient global-local hybrid optimisation method using design sensitivity analysis. International Journal of Vehicle Design, 2002, 28, 300.	0.3	19
28	Prediction of ship power based on variation in deep feed-forward neural network. International Journal of Naval Architecture and Ocean Engineering, 2021, 13, 641-649.	2.3	19
29	Lifting simulation of an offshore supply vessel considering various operating conditions. Advances in Mechanical Engineering, 2016, 8, 168781401665463.	1.6	18
30	Multidisciplinary design optimisation of mechanical systems using collaborative optimisation approach. International Journal of Vehicle Design, 2001, 25, 353.	0.3	17
31	Generation of the 3D CAD model of the hull structure at the initial ship design stage and its application. Computers in Industry, 2007, 58, 539-557.	9.9	17
32	Coupled analysis method of a mooring system and a floating crane based on flexible multibody dynamics considering contact with the seabed. Ocean Engineering, 2018, 163, 555-569.	4.3	17
33	Computational Ship Design. , 2018, , .		17
34	Development of a semantic product modeling system for initial hull structure in shipbuilding. Robotics and Computer-Integrated Manufacturing, 2004, 20, 211-223.	9.9	16
35	Optimal module layout for a generic offshore LNG liquefaction process of LNG-FPSO. Ships and Offshore Structures, 2014, 9, 311-332.	1.9	16
36	Detection and tracking for the awareness of surroundings of a ship based on deep learning. Journal of Computational Design and Engineering, 2021, 8, 1407-1430.	3.1	16

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37	Rapid generation of the piping model having the relationship with a hull structure in shipbuilding. <i>Advances in Engineering Software</i> , 2007, 38, 215-228.	3.8	15
38	A submarine arrangement design program based on the expert system and the multistage optimization. <i>Advances in Engineering Software</i> , 2016, 98, 97-111.	3.8	15
39	Development and validation of a simulation-based safety evaluation program for a mega floating crane. <i>Advances in Engineering Software</i> , 2017, 112, 101-116.	3.8	15
40	A tagline proportional-derivative control method for the anti-swing motion of a heavy load suspended by a floating crane in waves. <i>Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment</i> , 2013, 227, 357-366.	0.5	14
41	Arrangement method of a naval surface ship considering stability, operability, and survivability. <i>Ocean Engineering</i> , 2018, 152, 316-333.	4.3	14
42	Generation of production material information for a building block and simulation of block erection for process planning and scheduling in shipbuilding. <i>International Journal of Production Research</i> , 2007, 45, 4653-4683.	7.5	13
43	A method for intermediate flooding and sinking simulation of a damaged floater in time domain. <i>Journal of Computational Design and Engineering</i> , 2017, 4, 1-13.	3.1	13
44	Quantitative calculation method of the collision risk for collision avoidance in ship navigation using the CPA and ship domain. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 894-909.	3.1	13
45	Object detection method for ship safety plans using deep learning. <i>Ocean Engineering</i> , 2022, 246, 110587.	4.3	13
46	Design of controller for mobile robot in welding process of shipbuilding engineering. <i>Journal of Computational Design and Engineering</i> , 2014, 1, 243-255.	3.1	12
47	ISO 15016:2015-Based Method for Estimating the Fuel Oil Consumption of a Ship. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 791.	2.6	12
48	Optimal dimension design of a hatch cover for lightening a bulk carrier. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2015, 7, 270-287.	2.3	11
49	Simulation of load lifting with equalizers used in shipyards. <i>Automation in Construction</i> , 2016, 61, 98-111.	9.8	11
50	Block turnover simulation considering the interferences between the block and wire ropes in shipbuilding. <i>Automation in Construction</i> , 2016, 67, 60-75.	9.8	10
51	Integrated method of analysis, visualization, and hardware for ship motion simulation. <i>Journal of Computational Design and Engineering</i> , 2018, 5, 285-298.	3.1	10
52	Determination of the Optimal Operating Condition of the Hamworthy Mark I Cycle for LNG-FPSO. <i>Journal of the Society of Naval Architects of Korea</i> , 2010, 47, 733-742.	0.5	10
53	A collaborative simulation in shipbuilding and the offshore installation based on the integration of the dynamic analysis, virtual reality, and control devices. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2019, 11, 699-722.	2.3	9
54	Determination of an economical shipping route considering the effects of sea state for lower fuel consumption. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2013, 5, 246-262.	2.3	9

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55	Ship compartment modeling based on a non-manifold polyhedron modeling kernel. <i>Advances in Engineering Software</i> , 2009, 40, 378-388.	3.8	8
56	Application of a topological modelling approach of multi-body system dynamics to simulation of multi-floating cranes in shipyards. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2010, 224, 365-373.	0.8	8
57	Local T-spline surface skinning with shape preservation. <i>CAD Computer Aided Design</i> , 2018, 104, 15-26.	2.7	8
58	Time-domain structural analysis during block turnover and lifting using 2D flexible multibody dynamics. <i>Marine Structures</i> , 2021, 75, 102841.	3.8	8
59	Passenger Ship Evacuation Simulation Considering External Forces due to the Inclination of Damaged Ship. <i>Journal of the Society of Naval Architects of Korea</i> , 2013, 50, 175-181.	0.5	8
60	Detailed design and construction of the hull of a floating, production, storage and off-loading (FPSO) unit. <i>Ships and Offshore Structures</i> , 2010, 5, 93-104.	1.9	7
61	Optimal Block Transportation Scheduling Considering the Minimization of the Travel Distance without Overload of a Transporter. <i>Journal of the Society of Naval Architects of Korea</i> , 2008, 45, 646-655.	0.5	7
62	Multi-floor Layout for the Liquefaction Process Systems of LNG FPSO Using the Optimization Technique. <i>Journal of the Society of Naval Architects of Korea</i> , 2012, 49, 68-78.	0.5	7
63	Implementation of the submarine diving simulation in a distributed environment. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2012, 4, 211-227.	2.3	6
64	A Thrust Allocation Method for Efficient Dynamic Positioning of a Semisubmersible Drilling Rig Based on the Hybrid Optimization Algorithm. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-12.	1.1	6
65	A structural weight estimation model of FPSO topsides using an improved genetic programming method. <i>Ships and Offshore Structures</i> , 2017, 12, 43-55.	1.9	6
66	Evaluation of feasibility index in the arrangement design of an offshore topside based on the automatic transformation of experts's knowledge and the fuzzy logic. <i>Ocean Engineering</i> , 2017, 130, 284-299.	4.3	6
67	An optimization model of tugboat operation for conveying a large surface vessel. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 654-675.	3.1	6
68	Underactuated crane control for the automation of block erection in shipbuilding. <i>Automation in Construction</i> , 2021, 124, 103573.	9.8	6
69	Integrated engineering environment for the process FEED of offshore oil and gas production plants. <i>Ocean Systems Engineering</i> , 2012, 2, 49-68.	0.5	6
70	Improvement of ship design practice using a 3D CAD model of a hull structure. <i>Robotics and Computer-Integrated Manufacturing</i> , 2008, 24, 105-124.	9.9	5
71	Arrangement Method of Offshore Topside Based on an Expert System and Optimization Technique. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2017, 139, .	1.2	5
72	Block erection simulation considering frictional contact with wire ropes. <i>Ocean Engineering</i> , 2020, 217, 107904.	4.3	5

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73	Block Erection Simulation Using the Integrated System of Combined Discrete Event and Discrete Time Simulation Kernel. Journal of the Society of Naval Architects of Korea, 2009, 46, 303-312.	0.5	5
74	Development of an Optimal Compartment Design System of Naval Ships Using Compartment Modeling and Ship Calculation Modules. Journal of the Society of Naval Architects of Korea, 2009, 46, 424-434.	0.5	5
75	Determination of the Optimal Operating Condition of Dual Mixed Refrigerant Cycle of LNG FPSO Topside Liquefaction Process. Journal of the Society of Naval Architects of Korea, 2012, 49, 33-44.	0.5	5
76	Event-based scenario manager for multibody dynamics simulation of heavy load lifting operations in shipyards. International Journal of Naval Architecture and Ocean Engineering, 2016, 8, 83-101.	2.3	4
77	Numerical analysis of wreck removal based on multibody system dynamics. Journal of Marine Science and Technology, 2018, 23, 521-535.	2.9	4
78	Dynamic analysis of block offloading using self-propelled modular transporters. Automation in Construction, 2018, 96, 411-432.	9.8	4
79	Collision detection and response of multibody systems using a position difference method and non-interpenetration constraint in shipbuilding simulation. Ocean Engineering, 2020, 195, 106673.	4.3	4
80	Optimum Arrangement Design of Mastic Ropes for Membrane-Type LNG Tanks Considering the Flatness of Thermal Insulation Panel and Production Cost. Journal of Marine Science and Engineering, 2020, 8, 353.	2.6	4
81	Operational Analysis of Container Ships by Using Maritime Big Data. Journal of Marine Science and Engineering, 2021, 9, 438.	2.6	4
82	Study on Hull Optimization Process Considering Operational Efficiency in Waves. Processes, 2021, 9, 898.	2.8	4
83	Antisway Control of a Crane on an Offshore Support Vessel Based on the Hardware-in-the-Loop Simulation. International Journal of Offshore and Polar Engineering, 2018, 28, 182-189.	0.8	4
84	A Study on the Weight Estimation Model of Floating Offshore Structures using the Non-linear Regression Analysis. Journal of the Society of Naval Architects of Korea, 2014, 51, 530-538.	0.5	4
85	A Study on Weight Estimation Model of Floating Offshore Structures using Enhanced Genetic Programming Method. Journal of the Society of Naval Architects of Korea, 2015, 52, 1-7.	0.5	4
86	Optimal scheduling of block lifting in consideration of the minimization of traveling distance while unloaded and wire and shackle replacement of a gantry crane. Journal of Marine Science and Technology, 2010, 15, 190-200.	2.9	3
87	Simplified nonlinear model for the weight estimation of FPSO plant topside using the statistical method. Ships and Offshore Structures, 2016, 11, 603-619.	1.9	3
88	Multi-floor Layout Model for Topsides of Floating Offshore Plant using the Optimization Technique. Journal of the Society of Naval Architects of Korea, 2015, 52, 77-87.	0.5	3
89	Estimation of Material Requirement of Piping Materials in an Offshore Structure using Big Data Analysis. Journal of the Society of Naval Architects of Korea, 2018, 55, 243-251.	0.5	3
90	Association Analysis of Piping Materials of an Offshore Structure Using Big Data Technology. Journal of Ship Production and Design, 2019, 35, 220-230.	0.4	3

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91	Optimum Design of Lug Arrangement Based on Static and Dynamic Analyses for Block Lifting. Journal of Ship Production and Design, 2018, 34, 119-133.	0.4	3
92	Performance analyses of naval ships based on engineering level of simulation at the initial design stage. International Journal of Naval Architecture and Ocean Engineering, 2017, 9, 446-459.	2.3	2
93	Design of a wreck removal method considering safety and economy. Ships and Offshore Structures, 2020, 15, 1037-1056.	1.9	2
94	Physics-based Salvage Simulation for Wrecked Ship Considering Environmental Loads. Journal of the Society of Naval Architects of Korea, 2015, 52, 387-394.	0.5	2
95	Dynamic Response Simulation of a Heavy Cargo Suspended by Parallel Connected Floating Cranes. Transactions of the Korean Society of Mechanical Engineers, A, 2012, 36, 681-689.	0.2	2
96	Block layout method in the block stockyard based on the genetic algorithm. Ocean Systems Engineering, 2012, 2, 271-287.	0.5	2
97	A Study on the Simplified Model for the Weight Estimation of Floating Offshore Plant using the Statistical Method. Journal of the Society of Naval Architects of Korea, 2013, 50, 373-382.	0.5	2
98	Design Modification of a Damaged Free-Fall Lifeboat for Floating Production Storage and Offloading Through Free-Fall Tests. International Journal of Offshore and Polar Engineering, 2016, 26, 417-422.	0.8	2
99	Layout Method of a FPSO (Floating, Production, Storage, and Off-Loading Unit) Using the Optimization Technique. , 2014, , .		1
100	Hardware-in-the-Loop Simulation for a Heave Compensator of an Offshore Support Vessel. , 2016, , .		1
101	An Arrangement Design Framework for Ships and Offshore Plants Based on Expert System and Optimization Technique. , 2016, , .		1
102	Dynamic flooding analysis method for intermediate flooding process of a ship. Ocean Engineering, 2020, 218, 108173.	4.3	1
103	Implementation of the submarine diving simulation in a distributed environment. International Journal of Naval Architecture and Ocean Engineering, 2012, 4, 211-227.	2.3	1
104	GPU-accelerated Lattice Boltzmann Simulation for the Prediction of Oil Slick Movement in Ocean Environment. Korean Journal of Computational Design and Engineering, 2013, 18, 399-406.	0.0	1
105	Passenger Ship Evacuation Simulation using Algorithm for Determination of Evacuating Direction based on Walking Direction Potential Function. Journal of the Society of Naval Architects of Korea, 2013, 50, 307-313.	0.5	1
106	Study on the Application of an Expert System to Arrangement Design of Submarine. Journal of the Society of Naval Architects of Korea, 2014, 51, 138-147.	0.5	1
107	A Study on Weight Estimation and Calculation of the Pipe Rack Structures for FPSO EPC Projects. Journal of the Society of Naval Architects of Korea, 2016, 53, 362-370.	0.5	1
108	A Study on the Methods for Finding Initial Equilibrium Position of a Lifting Block for the Safe Erection. Journal of the Society of Naval Architects of Korea, 2018, 55, 297-305.	0.5	1

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109	Evacuation, Escape and Rescue EER Analysis of Offshore Plant Based on Human Behavior Model. , 2014, , .		0
110	Simulation-Based Design for Load-Out, Transportation, and Installation of Offshore Topside Modules Based on Flexible Multibody and Collision Dynamics. , 2018, , .		0
111	Hull Structural Design. , 2018, , 215-264.		0
112	General Arrangement Design. , 2018, , 181-214.		0
113	G1 BÄzier surface interpolation with T-junctions at a 3-valent singular vertex. Computer Aided Geometric Design, 2018, 67, 79-95.	1.2	0
114	Submarine Diving and Surfacing Simulation Using Discrete Event and Dynamic-based Discrete Time Combined Modeling Architecture. Journal of the Society of Naval Architects of Korea, 2010, 47, 248-257.	0.5	0
115	Development of a Motion Simulator for Portable Type Welding Robot Based on Adaptive Control. Journal of the Society of Naval Architects of Korea, 2012, 49, 400-409.	0.5	0
116	Reliability Analysis Method Using Dynamic Reliability Block Diagram Based on DEVS Formalism. Communications in Computer and Information Science, 2013, , 219-230.	0.5	0
117	Lifting off simulation of an offshore supply vessel considering ocean environmental loads and lifting off velocity. Ocean Systems Engineering, 2015, 5, 181-198.	0.5	0
118	A Preliminary Study on a Method for the Weight Estimation and Calculation of Offshore EPC Projects. Journal of the Society of Naval Architects of Korea, 2016, 53, 154-161.	0.5	0
119	Outfitting Design. , 2018, , 265-297.		0
120	Weight-Estimation Method of FPSO Topsides Considering the Work Breakdown Structure. Journal of Offshore Mechanics and Arctic Engineering, 2018, 140, .	1.2	0
121	Optimal Layout Design of a Liquefied Natural Gas FPSO: A Case Study. Journal of Offshore Mechanics and Arctic Engineering, 2020, 142, .	1.2	0
122	Optimal Arrangement Method of a Ship Considering the Performance Against Flooding. Lecture Notes in Civil Engineering, 2021, , 190-197.	0.4	0