

# Duhwan Mun

## List of Publications by Year in descending order

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84  
papers

1,041  
citations

430874

18  
h-index

501196

28  
g-index

86  
all docs

86  
docs citations

86  
times ranked

408  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep learning-based digitalization of a part catalog book to generate part specification by a neutral reference data dictionary. <i>Computers in Industry</i> , 2022, 139, 103665.	9.9	4
2	Iterative offset-based method for reconstructing a mesh model from the point cloud of a pig. <i>Computers and Electronics in Agriculture</i> , 2022, 198, 106996.	7.7	6
3	End-to-end digitization of image format piping and instrumentation diagrams at an industrially applicable level. <i>Journal of Computational Design and Engineering</i> , 2022, 9, 1298-1326.	3.1	8
4	A method of generating depth images for view-based shape retrieval of 3D CAD models from partial point clouds. <i>Multimedia Tools and Applications</i> , 2021, 80, 10859-10880.	3.9	12
5	Practical method for the fast generation of a CAM model for jet engine parts. <i>Advances in Mechanical Engineering</i> , 2021, 13, 168781402110027.	1.6	3
6	Neutral model-based interfacing of 3D design to support collaborative project management in the process plant industry. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 824-835.	3.1	4
7	Mesh-offset-based method to generate a delta volume to support the maintenance of partially damaged parts through 3D printing. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 3131-3143.	1.5	8
8	Robust generation of the delta volume for the damaged area of a part using the marching cubes algorithm to support additive manufacturing-based part maintenance. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 117, 1473.	3.0	1
9	Manufacturability evaluation of parts using descriptor-based machining feature recognition. <i>International Journal of Computer Integrated Manufacturing</i> , 2021, 34, 1196-1222.	4.6	5
10	Deep-learning-based recognition of symbols and texts at an industrially applicable level from images of high-density piping and instrumentation diagrams. <i>Expert Systems With Applications</i> , 2021, 183, 115337.	7.6	21
11	Lifecycle management of component catalogs based on a neutral model to support seamless integration with plant 3D design. <i>Journal of Computational Design and Engineering</i> , 2021, 8, 409-427.	3.1	6
12	Deep Learning-Based Method to Recognize Line Objects and Flow Arrows from Image-Format Piping and Instrumentation Diagrams for Digitization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10054.	2.5	10
13	Dataset and method for deep learning-based reconstruction of 3D CAD models containing machining features for mechanical parts. <i>Journal of Computational Design and Engineering</i> , 2021, 9, 114-127.	3.1	13
14	Machining feature recognition based on deep neural networks to support tight integration with 3D CAD systems. <i>Scientific Reports</i> , 2021, 11, 22147.	3.3	18
15	Reconstruction of primitive-shaped pipe elbows from a triangular mesh in ship outfitting model. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 5551-5560.	1.5	0
16	ISO 15926-based integration of process plant life-cycle information including maintenance activity. <i>Concurrent Engineering Research and Applications</i> , 2020, 28, 58-71.	3.2	6
17	Deep-learning-based retrieval of piping component catalogs for plant 3D CAD model reconstruction. <i>Computers in Industry</i> , 2020, 123, 103320.	9.9	30
18	Multiobjective evolutionary optimization for feature-based simplification of 3D boundary representation models. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 110, 2603-2618.	3.0	6

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19	A Method to Minimize the Data Size of a Lightweight Model for Ship and Offshore Plant Structure Using Part Characteristics. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 763.	2.6	8
20	Semantics-aware adaptive simplification for lightweighting diverse 3D CAD models in industrial plants. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1289-1300.	1.5	8
21	Deep learning applications in an industrial process plant: repository of segmented point clouds for pipework components. <i>JMST Advances</i> , 2020, 2, 15-24.	1.9	6
22	Development of a System to Retrieve Manufacturing Conditions to Support 3D Printing-Based Part Maintenance. <i>Journal of the Korean Society for Precision Engineering</i> , 2020, 37, 633-640.	0.2	1
23	Part recognition-based simplification of triangular mesh models for ships and plants. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 1329-1342.	3.0	8
24	Maintenance Framework for Repairing Partially Damaged Parts Using 3D Printing. <i>International Journal of Precision Engineering and Manufacturing</i> , 2019, 20, 1451-1464.	2.2	15
25	B-rep model simplification using selective and iterative volume decomposition to obtain finer multi-resolution models. <i>CAD Computer Aided Design</i> , 2019, 112, 23-34.	2.7	19
26	Features Recognition from Piping and Instrumentation Diagrams in Image Format Using a Deep Learning Network. <i>Energies</i> , 2019, 12, 4425.	3.1	28
27	Part library-based information retrieval and inspection framework to support part maintenance using 3D printing technology. <i>Rapid Prototyping Journal</i> , 2019, 25, 630-644.	3.2	13
28	Development of A Postprocessor for Exchanging of Equipment and Materials Specification-sheet Data Based on ISO 15926. <i>Transactions of the Korean Society of Mechanical Engineers, A</i> , 2019, 43, 373-383.	0.2	1
29	Development of a System to Translate Fitting Parts' Spec-Catalog Data between Plant 3D CAD Systems and Neutral Model. <i>Transactions of the Korean Society of Mechanical Engineers, A</i> , 2019, 43, 657-665.	0.2	1
30	Similarity comparison of original and remodeled plant 3D piping CAD models using quantitative evaluation metrics for offshore plants. <i>Journal of Marine Science and Technology</i> , 2018, 23, 647-661.	2.9	3
31	User-assisted integrated method for controlling level of detail of large-scale B-rep assembly models. <i>International Journal of Computer Integrated Manufacturing</i> , 2018, 31, 881-892.	4.6	13
32	Standardized exchange of plant equipment and materials data based on ISO 15926 methodology in nuclear power plants. <i>Annals of Nuclear Energy</i> , 2018, 118, 185-198.	1.8	10
33	Development of Preprocessor for the Exchange of Equipment and Materials' Specifications Sheet Data Based on ISO 15926. <i>Transactions of the Korean Society of Mechanical Engineers, A</i> , 2018, 42, 1141-1158.	0.2	1
34	Feature shape complexity: a new criterion for the simplification of feature-based 3D CAD models. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 88, 1831-1843.	3.0	21
35	Three-dimensional solid reconstruction of a human bone from CT images using interpolation with triangular B-spline patches. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 3875-3886.	1.5	12
36	Extended progressive simplification of feature-based CAD models. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 93, 915-932.	3.0	8

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37	Toward standardized exchange of plant 3D CAD models using ISO 15926. CAD Computer Aided Design, 2017, 83, 80-95.	2.7	24
38	Shape distribution-based retrieval of 3D CAD models at different levels of detail. Multimedia Tools and Applications, 2017, 76, 15867-15884.	3.9	16
39	Determination of appropriate level of detail of a three-dimensional computer-aided design model from a permissible dissimilarity for fully automated simplification. Advances in Mechanical Engineering, 2017, 9, 168781401770712.	1.6	4
40	Shape distribution-based approach to comparing 3D CAD assembly models. Journal of Mechanical Science and Technology, 2017, 31, 5627-5638.	1.5	11
41	Development of an UG NX-based Plug-in Type System for the Simplification of 3D CAD Assembly Models. Transactions of the Korean Society of Mechanical Engineers, A, 2017, 41, 1239-1246.	0.2	1
42	Profile-based feature representation method and its application in data exchange from mechanical CAD systems to ship CAD systems. Journal of Mechanical Science and Technology, 2016, 30, 5641-5649.	1.5	4
43	Implementation of persistent identification of topological entities based on macro-parametrics approach. Journal of Computational Design and Engineering, 2016, 3, 161-177.	3.1	5
44	Enhancement of equipment information sharing using three-dimensional computer-aided design simplification and digital catalog techniques in the plant industry. Concurrent Engineering Research and Applications, 2016, 24, 275-289.	3.2	14
45	Development of a Similarity Evaluation System for Offshore Plants' 3D Piping CAD Models Created Using Aveva Marine and SmartMarine 3D. Transactions of the Korean Society of Mechanical Engineers, A, 2016, 40, 397-406.	0.2	0
46	Enhanced volume decomposition minimizing overlapping volumes for the recognition of design features. Journal of Mechanical Science and Technology, 2015, 29, 5289-5298.	1.5	16
47	Verification of product design using regulation knowledgebase and Web services. Journal of Mechanical Science and Technology, 2015, 29, 5113-5119.	1.5	3
48	Graph-Based Simplification of Feature-Based Three-Dimensional Computer-Aided Design Models for Preserving Connectivity. Journal of Computing and Information Science in Engineering, 2015, 15, .	2.7	16
49	Simplification of feature-based 3D CAD assembly data of ship and offshore equipment using quantitative evaluation metrics. CAD Computer Aided Design, 2015, 59, 140-154.	2.7	40
50	Counter-deformed design of ship structural parts using geometric shape deformation based on welding distortion estimation. Journal of Marine Science and Technology, 2015, 20, 442-453.	2.9	5
51	Design Verification System Framework of Pressure Vessels Using Korea Industrial Standards. Transactions of the Korean Society of Mechanical Engineers, A, 2015, 39, 291-301.	0.2	1
52	Development of an ISO 15926-based Integration Platform of 3D Design Data for Process Plants. Korean Journal of Computational Design and Engineering, 2015, 20, 385-400.	0.0	0
53	Discrete event simulation of Maglev transport considering traffic waves. Journal of Computational Design and Engineering, 2014, 1, 233-242.	3.1	10
54	Stepwise volume decomposition for the modification of B-rep models. International Journal of Advanced Manufacturing Technology, 2014, 75, 1393-1403.	3.0	24

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55	Method to simplify ship outfitting and offshore plant equipment three-dimensional (3-D) computer-aided design (CAD) data for construction of an equipment catalog. Journal of Marine Science and Technology, 2014, 19, 185-196.	2.9	28
56	Feature-based simplification of boundary representation models using sequential iterative volume decomposition. Computers and Graphics, 2014, 38, 97-107.	2.5	47
57	Non-overlapping Volume Decomposition Using Maximum Volumes. Korean Journal of Computational Design and Engineering, 2014, 19, 50-60.	0.0	1
58	Development of Feature-Based 3D CAD Assembly Data Simplification System for Equipment and Materials. Transactions of the Korean Society of Mechanical Engineers, A, 2014, 38, 1075-1084.	0.2	1
59	Development of an Editor for Reference Data Library Based on ISO 15926. Korean Journal of Computational Design and Engineering, 2014, 19, 390-401.	0.0	1
60	Counter-Deformed Design of Ship Structural Parts Using Geometric Shape Deformation Based on Welding Distortion Estimation. , 2013, , .		0
61	Exchange of Plant P&ID Data Based on ISO 15926 Using iRINGTools. Korean Journal of Computational Design and Engineering, 2013, 18, 200-210.	0.0	5
62	Stepwise Volume Decomposition Considering Design Feature Recognition. Korean Journal of Computational Design and Engineering, 2013, 18, 71-82.	0.0	1
63	Development of Procedural 2D CAD Data Translator Supporting ISO 10303 STEP. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 693-705.	0.2	0
64	Development of 3D CAD Part Data Simplification System for Ship and Offshore Plant Equipment. Korean Journal of Computational Design and Engineering, 2013, 18, 167-176.	0.0	1
65	Simplification of Boundary Representation Models Based on Stepwise Volume Decomposition. Transactions of the Korean Society of Mechanical Engineers, A, 2013, 37, 1305-1313.	0.2	1
66	Simulating ship and buoy motions arising from ocean waves in a ship handling simulator. Simulation, 2012, 88, 1407-1418.	1.8	6
67	Securing design checking service for the regulation-based product design. Computers in Industry, 2012, 63, 586-596.	9.9	5
68	Name matching method using topology merging and splitting history for exchange of feature-based CAD models. Journal of Mechanical Science and Technology, 2012, 26, 3201-3212.	1.5	15
69	Integrated management of facility, process, and output: data model perspective. Science China Information Sciences, 2012, 55, 994-1007.	4.3	11
70	A procedural method to exchange editable 3D data from a free-hand 2D sketch modeling system into 3D mechanical CAD systems. CAD Computer Aided Design, 2012, 44, 123-131.	2.7	22
71	Integration of distributed plant lifecycle data using ISO 15926 and Web services. Annals of Nuclear Energy, 2011, 38, 2309-2318.	1.8	26
72	A method to exchange procedurally represented 2D CAD model data using ISO 10303 STEP. CAD Computer Aided Design, 2011, 43, 1717-1728.	2.7	15

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73	Knowledge-based part similarity measurement utilizing ontology and multi-criteria decision making technique. <i>Advanced Engineering Informatics</i> , 2011, 25, 119-130.	8.0	31
74	Web Service with Parallel Processing Capabilities for the Retrieval of CAD Assembly Data. <i>Concurrent Engineering Research and Applications</i> , 2011, 19, 5-18.	3.2	10
75	Retrieval of CAD model data based on Web Services for collaborative product development in a distributed environment. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 50, 1085-1099.	3.0	21
76	An integrated translation of design data of a nuclear power plant from a specification-driven plant design system to neutral model data. <i>Annals of Nuclear Energy</i> , 2010, 37, 389-397.	1.8	16
77	Representation and Propagation of Engineering Change Information in Collaborative Product Development using a Neutral Reference Model. <i>Concurrent Engineering Research and Applications</i> , 2009, 17, 147-157.	3.2	26
78	OpenPDM-based product data exchange among heterogeneous PDM systems in a distributed environment. <i>International Journal of Advanced Manufacturing Technology</i> , 2009, 40, 1033-1043.	3.0	12
79	Protection of intellectual property based on a skeleton model in product design collaboration. <i>CAD Computer Aided Design</i> , 2009, 41, 641-648.	2.7	45
80	A Method for Measuring Part Similarity Using Ontology and a Multi-Criteria Decision Making Method. , 2009, , .		2
81	Sharing product data of nuclear power plants across their lifecycles by utilizing a neutral model. <i>Annals of Nuclear Energy</i> , 2008, 35, 175-186.	1.8	28
82	Engineered-to-order Approach for Providing Flexibility in e-Commerce of Mold Parts. <i>Concurrent Engineering Research and Applications</i> , 2007, 15, 345-355.	3.2	4
83	A Method for Automatic Generation of Parametric Computer Aided Design Models in a Mold Base e-Catalog System. <i>Journal of Computing and Information Science in Engineering</i> , 2006, 6, 308-314.	2.7	4
84	A set of standard modeling commands for the history-based parametric approach. <i>CAD Computer Aided Design</i> , 2003, 35, 1171-1179.	2.7	125