Yoram Reich

List of Publications by Year
in descending order

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143	2,505	186265	254184
papers	citations	28	43
		h-index	g-index

158	158	158	1369
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluating machine learning models for engineering problems. Advanced Engineering Informatics, 1999, 13, 257-272.	0.5	138
2	Machine Learning Techniques for Civil Engineering Problems. Computer-Aided Civil and Infrastructure Engineering, 1997, 12, 295-310.	9.8	115
3	Topological structures for modeling engineering design processes. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2003, 14, 185-199.	2.1	101
4	Varieties and issues of participation and design. Design Studies, 1996, 17, 165-180.	3.1	87
5	A critical review of General Design Theory. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 1995, 7, 1-18.	2.1	70
6	My method is better!. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2010, 21, 137-142.	2.1	65
7	Creative conceptual design: Extending the scope by infused design. CAD Computer Aided Design, 2009, 41, 117-135.	2.7	63
8	From DSM-Based Planning to Design Process Simulation: A Review of Process Scheme Logic Verification Issues. IEEE Transactions on Engineering Management, 2009, 56, 636-649.	3.5	62
9	Standardization and modularization driven by minimizing overall process effort. CAD Computer Aided Design, 2006, 38, 405-416.	2.7	56
10	Managing product design quality under resource constraints. International Journal of Production Research, 2004, 42, 2555-2572.	7.5	55
11	Infused design. I. Theory. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2004, 15, 93.	2.1	54
12	SOS â€“ subjective objective system for generating optimal product concepts. Design Studies, 2005, 26, 509-533.	3.1	54
13	A theoretical analysis of creativity methods in engineering design: casting and improving ASIT within Câ€“K theory. Journal of Engineering Design, 2012, 23, 137-158.	2.3	54
14	Designing Products for Adaptability: Insights from Four Industrial Cases. Decision Sciences, 2017, 48, 875-917.	4.5	51
15	Measuring the value of knowledge. International Journal of Human Computer Studies, 1995, 42, 3-30.	5.6	46
16	The Formation and Use of Abstract Concepts in Design. , 1991, , 323-353.		44
17	Biomimetic Design Method for Innovation and Sustainability. , 2016, , .		44
18	Design theory: a foundation of a new paradigm for design science and engineering. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2018, 29, 5-21.	2.1	44

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19	Equations arenâ€™t enough: informal modeling in design. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1993, 7, 257-274.	1.1	43
20	Building Agility for Developing Agile Design Information Systems. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 1999, 11, 67-83.	2.1	43
21	Designing the process design process. Computers and Chemical Engineering, 1997, 21, S1-S9.	3.8	42
22	Progressive sharing of modules among product variants. CAD Computer Aided Design, 2003, 35, 791-806.	2.7	42
23	Managing product quality, risk, and resources through resource quality function deployment. Journal of Engineering Design, 2008, 19, 249-267.	2.3	41
24	Advancing Architecture Options Theory: Six Industrial Case Studies. Systems Engineering, 2015, 18, 396-414.	2.7	40
25	Managing the Dynamics of New Product Development Processes. , 2011, , .		37
26	Static, vibration and stability analysis of non-uniform beams. Computers and Structures, 1989, 31, 567-573.	4.4	35
27	New roles for machine learning in design. Advanced Engineering Informatics, 1993, 8, 165-181.	0.5	35
28	A model of aesthetic judgment in design. Advanced Engineering Informatics, 1993, 8, 141-153.	0.5	32
29	Decomposing the problem of constrained surface fitting in reverse engineering. CAD Computer Aided Design, 2005, 37, 399-417.	2.7	32
30	Biomimetics: Structureâ€“Function Patterns Approach. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	2.9	32
31	The interdisciplinary engineering knowledge genome. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2012, 23, 251-264.	2.1	29
32	Layered models of research methodologies. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1994, 8, 263-274.	1.1	28
33	Multi-level modelling and simulation of new product development processes. Journal of Engineering Design, 2013, 24, 185-210.	2.3	28
34	Creativity and scientific discovery with infused design and its analysis with Câ€“K theory. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2013, 24, 201-214.	2.1	27
35	The principle of reflexive practice. Design Science, 2017, 3, .	2.1	27
36	Strengthening learning algorithms by feature discovery. Information Sciences, 2012, 189, 176-190.	6.9	26

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37	Infused design. II. Practice. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2004, 15, 108.	2.1	25
38	A framework for organizing the space of decision problems with application to solving subjective, context-dependent problems. Decision Support Systems, 2005, 41, 1-19.	5.9	25
39	The N-Dim Approach to Creating Design Support Systems. , 1997, , .		24
40	Ensemble modelling or selecting the best model: Many could be better than one. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1999, 13, 377-386.	1.1	23
41	Design knowledge acquisition: task analysis and a partial implementation. International Journal of Human-Computer Studies, 1991, 3, 237-254.	1.2	22
42	The development of Bridger: A methodological study of research on the use of machine learning in design. Advanced Engineering Informatics, 1993, 8, 217-231.	0.5	22
43	Formalizing a Workflow-Net Implementation of Design-Structure-Matrix-Based Process Planning for New Product Development. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2011, 41, 476-491.	2.9	22
44	A methodology for building neural networks models from empirical engineering data. Engineering Applications of Artificial Intelligence, 2000, 13, 685-694.	8.1	21
45	Coaching product development teams: a conceptual foundation for empirical studies. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2009, 19, 205-222.	2.1	21
46	Developing an analytical model for planning systems verification, validation and testing processes. Advanced Engineering Informatics, 2012, 26, 429-438.	8.0	21
47	Improving the Rationale Capture Capability of QFD. Engineering With Computers, 2000, 16, 236-252.	6.1	20
48	Planning the verification, validation, and testing process: a case study demonstrating a decision support model. Journal of Engineering Design, 2017, 28, 171-204.	2.3	20
49	The PSI Framework and Theory of Design. IEEE Transactions on Engineering Management, 2022, 69, 1037-1049.	3.5	18
50	A novel criterion for singularity analysis of parallel mechanisms. Mechanism and Machine Theory, 2019, 137, 459-475.	4.5	16
51	Designing development processes related to system of systems using a modeling framework. Systems Engineering, 2019, 22, 561-575.	2.7	15
52	System that Learns to Design Cable-Stayed Bridges. Journal of Structural Engineering, 1995, 121, 1090-1100.	3.4	14
53	1.6.3 Managing Dynamic New Product Development Processes. Incose International Symposium, 2007, 17, 215-229.	0.6	14
54	The potential of machine learning techniques for expert systems. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1989, 3, 175-193.	1.1	13

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55	Enterprise Systems Engineering for Better Operational Interoperability. Systems Engineering, 2015, 18, 625-638.	2.7	13
56	Simulating Design Processes with self-iteration activities based on DSM planning. , 2007, , .		11
57	An Evaluation of Musical Score Characteristics for Automatic Classification of Composers. Computer Music Journal, 2011, 35, 86-97.	0.1	11
58	Machine learning of material behaviour knowledge from empirical data. Materials & Design, 1995, 16, 251-259.	5.1	10
59	EPIC framework for enterprise processes integrative collaboration. Systems Engineering, 2018, 21, 30-46.	2.7	10
60	A Complete Geometric Singular Characterization of the 6/6 Stewart Platform. Journal of Mechanisms and Robotics, 2018, 10, .	2.2	9
61	Modeling and Debugging Engineering Decision Procedures with Machine Learning. Journal of Computing in Civil Engineering, 1996, 10, 157-166.	4.7	8
62	Learning in design: From characterizing dimensions to working systems. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1998, 12, 161-172.	1.1	8
63	CASE-BASED REASONING WITH SUBJECTIVE INFLUENCE KNOWLEDGE. Applied Artificial Intelligence, 2004, 18, 735-760.	3.2	8
64	The Interplay Between Design and Mathematics: Introduction to Bootstrapping Effects. , 2008, , .		8
65	Improving Process Descriptions in Research by Model-Based Analysis. IEEE Systems Journal, 2021, 15, 435-444.	4.6	8
66	Using Domain-Specific Models to Facilitate Model-Based Systems-Engineering: Development Process Design Modeling with OPM and PROVE. Applied Sciences (Switzerland), 2021, 11, 1532.	2.5	8
67	Preventing Breakthroughs From Breakdowns. , 2008, , .		8
68	Designing winning robots by careful design of their development process. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 157-183.	2.1	7
69	What is a reference?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2017, 28, 411-419.	2.1	7
70	The coronavirus pandemic: How can design help?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2020, 31, 141-142.	2.1	7
71	Artificial Intelligence in Bridge Engineering. Computer-Aided Civil and Infrastructure Engineering, 1996, 11, 433-445.	9.8	6
72	Designing science. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2013, 24, 215-218.	2.1	6

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73	What can We Learn from Biological Systems when Applying the Law of System Completeness?. Procedia Engineering, 2015, 131, 104-114.	1.2	6
74	ESE Framework Verification by MBSE. IEEE Systems Journal, 2019, 13, 2108-2117.	4.6	6
75	Incorporating Systems Thinking Into a Cyber Resilience Maturity Model. IEEE Engineering Management Review, 2021, 49, 110-115.	1.3	6
76	Annotated bibliography on research methodologies. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1994, 8, 355-366.	1.1	5
77	Year closure and a new beginning: towards better engineering design research. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 1-2.	2.1	5
78	Substance Field Analysis and Biological Functions. Procedia Engineering, 2015, 131, 372-376.	1.2	5
79	COMPUTATIONAL SUPPORT FOR SHARED MEMORY IN DESIGN. , 1994, , 219-236.		5
80	Documenting design research by structured multilevel analysis: supporting the diversity of the design research community of practice. Design Science, 2022, 8, .	2.1	5
81	Philosophy of design, science of design, engineering (of) design: what is your choice?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2013, 24, 321-323.	2.1	4
82	2016 closure. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2017, 28, 1-3.	2.1	4
83	The PSI Network Model for Studying Diverse Complex Design Scenarios. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 1283-1292.	0.6	4
84	Automated discovery of scientific concepts: Replicating three recent discoveries in mechanics. Advanced Engineering Informatics, 2020, 44, 101080.	8.0	4
85	A decision support model to manage overspecification in system development projects. Journal of Engineering Design, 0, , 1-23.	2.3	4
86	Robust design under cumulative damage due to dynamic failure mechanisms. Systems Engineering, 2021, 24, 322-338.	2.7	4
87	Model-based Threat and Risk Assessment for Systems Design. , 2021, , .		4
88	Synthesis and theory of knowledge: general design theory as a theory of knowledge, and its implication to design. , 2002, , 35-48.		4
89	Improving Coordination and Collaboration in Connected and Automated Vehicle Development Projects Using Model Based Process Design. , 0, , .		4
90	LIFE-CYCLE MANAGEMENT OF INFORMATION AND DECISIONS FOR SYSTEM ANALYSES. Mechanical Systems and Signal Processing, 2001, 15, 513-527.	8.0	3

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91	Optimizing System Design under Degrading Failure Agents. , 2016, , .		3
92	A Framework for Development Process Design and its use for Establishing Intellectual Property Governance : Introduction of the PROVE framework using a case study. , 2018, , .		3
93	Singularity analysis of some multi-platform mechanisms by decomposition and reciprocality. Mechanism and Machine Theory, 2020, 146, 103735.	4.5	3
94	Computational Quality Function Deployment is Knowledge Intensive Engineering. IFIP Advances in Information and Communication Technology, 1996, , 315-334.	0.7	3
95	A comparison of explicit optimal design methods. Computers and Structures, 1989, 32, 175-184.	4.4	2
96	Modelling engineering information with machine learning. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1996, 10, 171-174.	1.1	2
97	Data Mining of Design Products and Processes. , 2005, , 1167-1187.		2
98	The redesign of Research in Engineering Design. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2010, 21, 65-68.	2.1	2
99	Design Process Planning Using DSM. , 2011, , 37-49.		2
100	Enhancing learning algorithms to support data with short sequence features by automated feature discovery. Knowledge-Based Systems, 2013, 52, 114-132.	7.1	2
101	What kinds of research evaluations work?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 93-94.	2.1	2
102	MAPPING AND ENHANCING DESIGN STUDIES WITH PSI META-THEORETIC DESIGN FRAMEWORK. Proceedings of the Design Society, 2021, 1, 2007-2016.	0.8	2
103	Requirements for Model-Based Development Process Design and Compliance of Standardized Models. Systems, 2021, 9, 3.	2.3	2
104	Infused Creativity: An Approach to Creative System Design. , 2005, , .		2
105	Designing integrated learning systems for engineering design. , 1991, , 635-639.		2
106	The research environmental impact disclosure. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2022, 33, 3-5.	2.1	2
107	Sequence-Based Prediction in Conceptual Design of Bridges. Journal of Computing in Civil Engineering, 1999, 13, 54-55.	4.7	1
108	Dear Professors G. Rzevski, I. Smith and T. Tomiyama. Advanced Engineering Informatics, 2000, 14, 199.	0.5	1

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109	Transforming Design Education by Design. , 2005, , 41.		1
110	Inventing a New Method in Statics Through Knowledge in Kinematics. , 2009, , .		1
111	Designing the voices. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2011, 22, 1-3.	2.1	1
112	Itâ€™s all about the team. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2015, 26, 1-2.	2.1	1
113	Enterprise Systems Engineering for Improving Crossâ€enterprise Effectiveness. Incose International Symposium, 2016, 26, 2085-2100.	0.6	1
114	Design theory: an invitation for a quilt of perspectives. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2018, 29, 1-2.	2.1	1
115	2017 Closure and reviewers gratitude. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2018, 29, 3-4.	2.1	1
116	2018 Closure and reviewersâ€™ gratitude. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2019, 30, 1-2.	2.1	1
117	DESIGNING A MODEL-BASED, MULTI-PERSPECTIVE PROCESS DESIGN ENVIRONMENT. Proceedings of the Design Society, 2021, 1, 1103-1112.	0.8	1
118	Design of Design Methodology for Autonomous Robots. Lecture Notes in Computer Science, 2008, , 528-539.	1.3	1
119	Logic Issues of DSM-Based Processes. , 2011, , 97-110.		1
120	Interpretation Using Implementation Rules and Business Rules. , 2011, , 153-168.		1
121	Journal innovations, 2021 closure, and reviewersâ€™ gratitude. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2022, 33, 1-2.	2.1	1
122	We cannot play 20 questions with creativity and innovation and win: the necessity of practice-based integrative research. International Journal of Design Creativity and Innovation, 2022, 10, 69-74.	1.2	1
123	COLT'88, proceedings of the 1988 workshop on computational learning theory. Advanced Engineering Informatics, 1991, 6, 103-104.	0.5	0
124	Discussion: Constructability Analysis: Machine Learning Approach. Journal of Computing in Civil Engineering, 1998, 12, 164-166.	4.7	0
125	Discussion of â€œSequenceâ€Based Prediction in Conceptual Design of Bridgesâ€•by Yoram Reich. Journal of Computing in Civil Engineering, 1999, 13, 54-55.	4.7	0
126	A Framework for Optimal Product Concept Generation. , 2003, , 459.		0

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127	Knowledge system for dropout prevention. International Journal of Educational Management, 2004, 18, 342-350.	1.5	0
128	To accept or not to accept: REDâ€™s way. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2010, 21, 207-208.	2.1	0
129	Kenneth Preiss. In memoriam. Advanced Engineering Informatics, 2011, 25, 399-400.	8.0	0
130	Reflection and reviewers appreciation. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2012, 23, 1-4.	2.1	0
131	Theory and practice of journal editorship: on editorial ethics. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2013, 24, 93-95.	2.1	0
132	The impact of design research journals. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 279-281.	2.1	0
133	How should the fate of submissions be determined? What is your voice?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2016, 27, 193-194.	2.1	0
134	Designing the Future We Want. , 2018, , 39-50.		0
135	2019 closure, reviewers gratitude, and an invitation. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2020, 31, 1-2.	2.1	0
136	2020 closure, reviewersâ€™ gratitude, and improved review process transparency. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2021, 32, 1-2.	2.1	0
137	We are not users. Communications of the ACM, 2021, 64, 37-39.	4.5	0
138	DSM Enhancements. , 2011, , 51-61.		0
139	Dynamic New-Product Design Process. , 2011, , 113-122.		0
140	Simulations. , 2011, , 63-74.		0
141	Managing Development Processes. , 2011, , 19-36.		0
142	From DSM to DSM Net. , 2011, , 123-151.		0
143	Configuring systems verification, validation and testing plan under various constraints and unpredicted events. International Journal of Product Development, 2021, 25, 369.	0.2	0