Claudia M Eckert

List of Publications by Year
in descending order

96 papers	3,794 citations	218381 26 h-index	138251 58 g-index
101 all docs	101 docs citations	101 times ranked	1691 citing authors

#	Article	IF	Citations
1	Change and customisation in complex engineering domains. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2004, 15, 1-21.	1.2	454
2	Predicting Change Propagation in Complex Design. Journal of Mechanical Design, Transactions of the ASME, 2004, 126, 788-797.	1.7	419
3	A review of fuzzy AHP methods for decision-making with subjective judgements. Expert Systems With Applications, 2020, 161, 113738.	4.4	413
4	Engineering change: an overview and perspective on the literature. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2011, 22, 103-124.	1.2	317
5	Sources of inspiration: a language of design. Design Studies, 2000, 21, 523-538.	1.9	268
6	Change Propagation Analysis in Complex Technical Systems. Journal of Mechanical Design, Transactions of the ASME, 2009, 131, .	1.7	183
7	Matrices or Node-Link Diagrams: Which Visual Representation is Better for Visualising Connectivity Models?. Information Visualization, 2006, 5, 62-76.	1.2	119
8	Perspectives on iteration in design and development. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2017, 28, 153-184.	1.2	111
9	A fuzzy decision tool to evaluate the sustainable performance of suppliers in an agrifood value chain. Computers and Industrial Engineering, 2019, 127, 196-212.	3.4	89
10	Against Ambiguity. Computer Supported Cooperative Work, 2003, 12, 153-183.	1.9	70
11	The Role of Objects in Design Co-Operation: Communication through Physical or Virtual Objects. Computer Supported Cooperative Work, 2003, 12, 145-151.	1.9	60
12	Planning development processes for complex products. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2010, 21, 153-171.	1.2	53
13	Supporting change processes in design: Complexity, prediction and reliability. Reliability Engineering and System Safety, 2006, 91, 1521-1534.	5.1	49
14	Exploration of Correlations between Factors Influencing Communication in Complex Product Development. Concurrent Engineering Research and Applications, 2008, 16, 37-59.	2.0	48
15	Different notions of function: results from an experiment on the analysis of an existing product. Journal of Engineering Design, 2011, 22, 811-837.	1.1	40
16	That which is not form: The practical challenges in using functional concepts in design. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2013, 27, 217-231.	0.7	40
17	Model granularity in engineering design â€“ concepts and framework. Design Science, 2017, 3, .	1.1	40
18	Engineering change. , 2005, , 262-285.		40

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19	The Communication Bottleneck in Knitwear Design: Analysis and Computing Solutions. Computer Supported Cooperative Work, 2001, 10, 29-74.	1.9	38
20	Design margins: a hidden issue in industry. Design Science, 2019, 5, .	1.1	38
21	Reshaping the box: creative designing as constraint management. International Journal of Product Development, 2010, 11, 241.	0.2	37
22	Identifying requirements for communication support: A maturity grid-inspired approach. Expert Systems With Applications, 2006, 31, 663-672.	4.4	36
23	Adaptation of Sources of Inspiration in Knitwear Design. Creativity Research Journal, 2003, 15, 355-384.	1.7	35
24	Change as little as possible: creativity in design by modification. Journal of Engineering Design, 2012, 23, 337-360.	1.1	35
25	Externalizing tacit overview knowledge: A model-based approach to supporting design teams. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2007, 21, 227-242.	0.7	33
26	Interactive generative systems for conceptual design: An empirical perspective. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1999, 13, 303-320.	0.7	31
27	Fortune Favours Only the Prepared Mind: Why Sources of Inspiration are Essential for Continuing Creativity. Creativity and Innovation Management, 1998, 7, 9-16.	1.9	30
28	Applied Signposting: A Modeling Framework to Support Design Process Improvement. , 2006, , 553.		29
29	My functional description is better!. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2013, 27, 187-190.	0.7	29
30	Intelligent support for communication in design teams: garment shape specifications in the knitwear industry. Design Studies, 2000, 21, 99-112.	1.9	27
31	Sources of Inspiration in Industrial Practice. The Case of Knitwear Design. Journal of Design Research, 2003, .	0.1	26
32	Power-based supplier selection in product development projects. Computers in Industry, 2011, 62, 487-500.	5.7	23
33	A Method for Improving Overlapping of Testing and Design. IEEE Transactions on Engineering Management, 2017, 64, 179-192.	2.4	23
34	Testing in the incremental design and development of complex products. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2019, 30, 291-316.	1.2	23
35	On the integration of product andÂprocess models in engineeringÂdesign. Design Science, 2017, 3, .	1.1	21
36	Supporting designers: moving from method menagerie to method ecosystem. Design Science, 2020, 6, .	1.1	21

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37	Communication in design. , 2005, , 232-261.		21
38	Sketching across design domains: Roles and formalities. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2012, 26, 245-266.	0.7	20
39	Comparing Functional Analysis Methods for Product Dissection Tasks. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	19
40	$$au $$ CFI: Type-Assisted Control Flow Integrity for x86-64 Binaries. Lecture Notes in Computer Science, 2018, , 423-444.	1.0	19
41	Variations in functional decomposition for an existing product: Experimental results. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2012, 26, 107-128.	0.7	18
42	Redesigning the design process through interactive simulation: a case study of life-cycle engineering in jet engine conceptual design. International Journal of Services and Operations Management, 2011, 10, 30.	0.1	16
43	Integrating virtual and physical testing to accelerate the engineering product development process. International Journal of Information Technology and Management, 2014, 13, 154.	0.1	16
44	Design Med Omtanke: Participation and sustainability in the design of public sector buildings. Design Studies, 2011, 32, 235-254.	1.9	15
45	Safety Margins and Design Margins: A Differentiation between Interconnected Concepts. Procedia CIRP, 2017, 60, 267-272.	1.0	15
46	Process models: plans, predictions, proclamations or prophecies?. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2020, 31, 83-102.	1.2	15
47	Managing Effective Communication in Knitwear Design. Design Journal, 1999, 2, 29-42.	0.5	14
48	IntRepair: Informed Repairing of Integer Overflows. IEEE Transactions on Software Engineering, 2021, 47, 2225-2241.	4.3	14
49	Function in engineering: Benchmarking representations and models. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2017, 31, 401-412.	0.7	13
50	Factors influencing communication in collaborative design. Journal of Engineering Design, 2021, 32, 671-702.	1.1	12
51	Design margins in industrial practice. Design Science, 2020, 6, .	1.1	12
52	A garment design system using constrained BÃ©zier curves. International Journal of Clothing Science and Technology, 2000, 12, 134-143.	0.5	11
53	Exploratory making: Shape, structure and motion. Design Studies, 2015, 41, 51-78.	1.9	11
54	Formality in design communication. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2013, 27, 91-103.	0.7	10

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55	CRITERIA FOR SELECTING DESIGN PROCESS MODELLING APPROACHES. Proceedings of the Design Society, 2021, 1, 791-800.	0.5	10
56	Experimental Investigation of the Implications of Model Granularity for Design Process Simulation. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	9
57	Challenges in identifying the knock-on effects of engineering change. International Journal of Design Engineering, 2009, 2, 414.	0.3	8
58	Supporting communication between product designers and engineering designers in the design process of branded products: a comparison of three approaches. CoDesign, 2014, 10, 135-152.	1.4	8
59	Research into the design and development process: some themes and an overview of the special issue. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2019, 30, 157-160.	1.2	8
60	Providing an Overview during the Design of Complex Products. , 2004, , 239-258.		8
61	Selecting system architecture: What a single industrial experiment can tell us about the traps to avoid when choosing selection criteria. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 250-262.	0.7	7
62	Pitfalls of Engineering Change. , 2006, , 413-423.		7
63	Components Margins through the Product Lifecycle. IFIP Advances in Information and Communication Technology, 2013, , 39-47.	0.5	7
64	NGN, All-IP, B3G: Enabler fï¿½r das Future Net?!. Informatik-Spektrum, 2004, 27, 12-34.	1.0	6
65	Design Margins as a Key to Understanding Design Iteration. , 2014, , .		6
66	If Only I Knew What You Were Going to Do. , 2004, , 375-384.		6
67	The elusive act of synthesis. , 2009, , .		5
68	Communicating Consumer Needs in the Design Process of Branded Products. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	5
69	Perspectives on Innovation: The Role of Engineering Design. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 1235-1244.	0.6	5
70	Assessing Suppliers for Complex Products From the Perspective of Power. IEEE Transactions on Engineering Management, 2022, 69, 1605-1621.	2.4	5
71	Facilitating Aligned Co-Decisions for More Sustainable Food Value Chains. Sustainability, 2021, 13, 6551.	1.6	5
72	Thoughts on benchmarking of function modeling: Why and how. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2017, 31, 393-400.	0.7	4

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73	CLASSIFYING DESIGN AND DESIGN MANAGEMENT IN SEASONAL INDUSTRIES. International Journal of Innovation Management, 2001, 05, 401-425.	0.7	3
74	Designing as playing games of make-believe. Design Science, 2020, 6, .	1.1	3
75	Data Fairy in Engineering Land: The Magic of Data Analysis as a Sociotechnical Process in Engineering Companies. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	3
76	Determining Component Freeze Order: A Redesign Cost Perspective Using Simulated Annealing. , 2008, , .		3
77	A Comparative Case Study of Functional Models to Support System Architecture Design. Procedia Computer Science, 2015, 44, 325-335.	1.2	2
78	Architecture decisions in different product classes for complex products. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 217-234.	0.7	2
79	Call for papers: a special issue of research in engineering design on the topic of design and development processes. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2017, 28, 5-6.	1.2	2
80	TOWARDS A RESILIENCE ASSURANCE MODEL FOR ROBOTIC AUTONOMOUS SYSTEMS. Proceedings of the Design Society, 2021, 1, 3189-3198.	0.5	2
81	CONNECTIVITY MODELS IN DESIGN: REPRESENTATIONS AND TOOLS TO SUPPORT COGNITIVE PREFERENCES BUILDING. , 2006, , 41-60.		2
82	Connectivity as a Key to Supporting Design. , 2002, , 479-501.		2
83	Product Form Evolution. , 2011, , 499-512.		2
84	Models in Engineering Design: Generative and Epistemic Function of Product Models. Design Research Foundations, 2018, , 219-242.	0.2	2
85	Guest Editorial: Innovation in Design Processes. IEEE Transactions on Engineering Management, 2022, 69, 1532-1536.	2.4	2
86	Design for Values in the FashionFashion and TextileTextile Industry. , 2015, , 691-715.		1
87	Editorial: Publishing in Peer-Reviewed Journals. IEEE Transactions on Engineering Management, 2021, 68, 5-10.	2.4	1
88	TOWARDS A DEBATE ON THE POSITIONING OF ENGINEERING DESIGN. Proceedings of the Design Society, 2021, 1, 3169-3178.	0.5	1
89	ANALYSIS OF FUNCTIONAL REFERENCE ARCHITECTURE THROUGH AN INDUSTRY LENS. Proceedings of the Design Society, 2021, 1, 467-476.	0.5	1
90	Design for Values in the Fashion and Textile Industry. , 2014, , 1-20.		1

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91	Design Perspectives, Theories, and Processes for Engineering Systems Design. , 2021, , 1-47.		1
92	AI EDAM Special Issue, August 2013, Vol. 27, No. 3. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2012, 26, 103-104.	0.7	0
93	AI EDAM Special Issue, August 2016, Vol. 30, No. 3. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2015, 29, 131-132.	0.7	0
94	System architecture design. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 214-216.	0.7	0
95	AI EDAM Special Issue, August 2017, Vol. 31, No. 3. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 329-330.	0.7	0
96	CONCEPT FOR A PERSONA DRIVEN RECOMMENDATION TOOL FOR PROCESS MODELLING APPROACHES. Proceedings of the Design Society, 2021, 1, 711-720.	0.5	0