

Federico Rotini

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

785
citations

516710

16
h-index

580821

25
g-index

66
all docs

66
docs citations

66
times ranked

544
citing authors

#	ARTICLE	IF	CITATIONS
1	A new design paradigm for the development of custom-fit soft sockets for lower limb prostheses. Computers in Industry, 2010, 61, 513-523.	9.9	74
2	Enhancing functional decomposition and morphology with TRIZ: Literature review. Computers in Industry, 2018, 94, 1-15.	9.9	55
3	Model and algorithm for computer-aided inventive problem analysis. CAD Computer Aided Design, 2012, 44, 961-986.	2.7	47
4	A new conceptual design approach for overcoming the flaws of functional decomposition and morphology. Journal of Engineering Design, 2016, 27, 438-468.	2.3	43
5	Exploiting TRIZ Tools for enhancing systematic conceptual design activities. Journal of Engineering Design, 2018, 29, 259-290.	2.3	34
6	Business Process Reengineering driven by customer value: a support for undertaking decisions under uncertainty conditions. Computers in Industry, 2015, 68, 132-147.	9.9	28
7	Systematic design through the integration of TRIZ and optimization tools. Procedia Engineering, 2011, 9, 674-679.	1.2	27
8	Towards the fine-tuning of a predictive Kano model for supporting product and service design. Total Quality Management and Business Excellence, 2015, 26, 263-283.	3.8	27
9	Investigating the Patterns of Value-Oriented Innovations in Blue Ocean Strategy. International Journal of Innovation Science, 2012, 4, 123-142.	2.7	25
10	Supporting product design by anticipating the success chances of new value profiles. Computers in Industry, 2013, 64, 421-435.	9.9	24
11	An original design approach for stimulating the ideation of new product features. Computers in Industry, 2016, 75, 80-100.	9.9	24
12	Forms of stimuli and their effects on idea generation in terms of creativity metrics and non-obviousness. International Journal of Design Creativity and Innovation, 2020, 8, 147-164.	1.2	22
13	Correlations between the evolution of contradictions and the law of identity increase. Procedia Engineering, 2011, 9, 236-250.	1.2	19
14	Product Planning techniques: investigating the differences between research trajectories and industry expectations. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2016, 27, 367-389.	2.1	18
15	Process value analysis for business process re-engineering. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2010, 224, 305-327.	2.4	17
16	Networks of trends: systematic definition of evolutionary scenarios. Procedia Engineering, 2011, 9, 355-367.	1.2	17
17	Computer-aided embodiment design through the hybridization of mono objective optimizations for efficient innovation process. Computers in Industry, 2011, 62, 384-397.	9.9	16
18	Investigating the future of the fuzzy front end: towards a change of paradigm in the very early design phases?. Journal of Engineering Design, 2018, 29, 644-664.	2.3	16

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19	Impact of missing attributes on the novelty metric of Shah et al.. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2020, 31, 221-234.	2.1	16
20	Systematizing new value proposition through a TRIZ-based classification of functional features. Procedia Engineering, 2011, 9, 103-118.	1.2	15
21	Testing a New Structured Tool for Supporting Requirementsâ€™ Formulation and Decomposition. Applied Sciences (Switzerland), 2020, 10, 3259.	2.5	14
22	Challenging COVID-19 with Creativity: Supporting Design Space Exploration for Emergency Ventilators. Applied Sciences (Switzerland), 2020, 10, 4955.	2.5	13
23	Novelty metrics in engineering design. Journal of Engineering Design, 2021, 32, 590-620.	2.3	13
24	Multi-objective topology optimization through GA-based hybridization of partial solutions. Engineering With Computers, 2013, 29, 287-306.	6.1	12
25	Surprise and design creativity: investigating the drivers of unexpectedness. International Journal of Design Creativity and Innovation, 2017, 5, 29-47.	1.2	11
26	ISSUES RELATED TO MISSING ATTRIBUTES IN A-POSTERIORI NOVELTY ASSESSMENTS. , 0, , .		11
27	An OTSM-TRIZ Based Framework Towards the Computer-Aided Identification of Cognitive Processes in Design Protocols. , 2015, , 99-117.		10
28	Business re-engineering through integration of methods and tools for process innovation. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2008, 222, 1715-1728.	2.4	9
29	Assessing creativity of design projects: criteria for the service engineering field. International Journal of Design Creativity and Innovation, 2013, 1, 131-159.	1.2	9
30	Usefulness of prototypes in conceptual design: studentsâ€™ view. International Journal on Interactive Design and Manufacturing, 2020, 14, 1305-1319.	2.2	9
31	A new eco-friendly packaging material made of straw and bioplastic. Journal of Agricultural Engineering, 2020, 51, 185-191.	1.5	8
32	The process for individuating TRIZ Inventive Principles: deterministic, stochastic or domain-oriented?. Design Science, 2021, 7, .	2.1	8
33	On the Factors Affecting Design Education Within a Multi-Disciplinary Class. Journal of Integrated Design and Process Science, 2017, 21, 21-44.	0.5	7
34	Impact of Design Representations on Creativity of Design Outcomes. Journal of Integrated Design and Process Science, 2020, 23, 31-60.	0.5	7
35	Refined metric for a-posteriori novelty assessments. Journal of Engineering Design, 2022, 33, 39-63.	2.3	7
36	Integrated design of turbomachinery through a STEP-XML platform for data exchange. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2005, 219, 547-554.	2.4	6

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37	Innovation Trajectories within the Support of Decisions: Insights about S-Curve and Dominant Design Models. <i>International Journal of Innovation Science</i> , 2012, 4, 259-268.	2.7	6
38	A CAD tool to support idea generation in the product planning phase. <i>Computer-Aided Design and Applications</i> , 2016, 13, 490-502.	0.6	6
39	From design optimization systems to geometrical contradictions. <i>Procedia Engineering</i> , 2011, 9, 473-483.	1.2	5
40	Modularization vs. Innovation. <i>International Journal of Innovation Science</i> , 2014, 6, 29-42.	2.7	5
41	Subjectivity of novelty metrics based on idea decomposition. <i>International Journal of Design Creativity and Innovation</i> , 2020, 8, 223-239.	1.2	5
42	Prosthesis Socket Design through Shape Optimization. <i>Computer-Aided Design and Applications</i> , 2013, 10, 863-876.	0.6	4
43	Preliminary Studies on Human Approaches to Inventive Design Tasks with a TRIZ Perspective. <i>Procedia Engineering</i> , 2015, 131, 39-49.	1.2	4
44	Adapted Use of the TRIZ System Operator. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6476.	2.5	4
45	Predicting the competitive advantage of design projects to dynamically support decisions in product development. <i>International Journal of Product Development</i> , 2015, 20, 355.	0.2	3
46	Application of Systematic Design Methods to Cultural Heritage Preservation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 949, 012029.	0.6	3
47	Wood pellet manufacturing improvements through product-driven process value analysis. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2011, 225, 761-772.	2.4	2
48	Question/answer techniques within CAD environments: An Investigation about the most Effective Interfaces. <i>Computer-Aided Design and Applications</i> , 2013, 10, 905-917.	0.6	2
49	Computer-Aided Problem Solving - Part 1: Objectives, Approaches, Opportunities. <i>International Federation for Information Processing</i> , 2011, , 117-131.	0.4	2
50	SUPPORTING SYSTEMATIC CONCEPTUAL DESIGN WITH TRIZ. , 0, , .		2
51	Effectiveness of different requirements checklists for novice designers. <i>Journal of Integrated Design and Process Science</i> , 2021, , 1-25.	0.5	2
52	About the Introduction of a Dialogue-Based Interaction within CAD Systems. <i>Computer-Aided Design and Applications</i> , 2013, 10, 499-514.	0.6	1
53	ARIZ85 and Patent-driven Knowledge Support. <i>Procedia Engineering</i> , 2015, 131, 291-302.	1.2	1
54	Non-reactive test rig for combustor-turbine interaction studies in industrial gas turbines. <i>Journal of Engineering, Design and Technology</i> , 2021, ahead-of-print, .	1.7	1

#	ARTICLE	IF	CITATIONS
55	From Computer-Aided (Detailed) Design to Automatic Topology and Shape Generation. , 2011, , 15-35.		1
56	Assessing the Performance of Computerized Tools for Inventive Design: Insights From Unsatisfactory Outcomes. , 2013, , 93-103.		1
57	Systematic Design of Ancient Machinesâ€™ Models: Leonardo da Vinciâ€™s Glider. Heritage, 2022, 5, 1593-1611.1.9		1
58	Teaching and Learning Design Methods: Facing the Related Issues with TRIZ. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 589-598.	0.6	0
59	Product-Driven Process Value Analysis. , 2011, , 387-396.		0
60	IPPR Implementation. Springer Series in Advanced Manufacturing, 2012, , 47-85.	0.5	0
61	NeoPalea: Compostable Composite Material for Packaging Applications. Smart Innovation, Systems and Technologies, 2021, , 357-367.	0.6	0
62	Recent Findings About the Novelty Metric of Shah. Lecture Notes in Mechanical Engineering, 2022, , 705-711.	0.4	0