

Edward F Crawley

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,086
citations

759233

12
h-index

454955

30
g-index

40
all docs

40
docs citations

40
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	A technical comparison of three low earth orbit satellite constellation systems to provide global broadband. <i>Acta Astronautica</i> , 2019, 159, 123-135.	3.2	468
2	System function and architecture. <i>Communications of the ACM</i> , 2003, 46, 67-72.	4.5	141
3	An Updated Comparison of Four Low Earth Orbit Satellite Constellation Systems to Provide Global Broadband. , 2021, , .		89
4	The CDIO syllabus: a comparative study of expected student proficiency. <i>European Journal of Engineering Education</i> , 2003, 28, 297-315.	2.3	52
5	Value flow mapping: Using networks to inform stakeholder analysis. <i>Acta Astronautica</i> , 2008, 62, 324-333.	3.2	51
6	The Education of Future Aeronautical Engineers: Conceiving, Designing, Implementing and Operating. <i>Journal of Science Education and Technology</i> , 2008, 17, 138-151.	3.9	28
7	Making projects work: a review of transferable best practice approaches to engineering project-based learning in the UK. <i>Engineering Education</i> , 2010, 5, 41-49.	0.3	28
8	Connecting the other half: Exploring options for the 50% of the population unconnected to the internet. <i>Telecommunications Policy</i> , 2021, 45, 102092.	5.3	21
9	Algebra of Systems: A Metalanguage for Model Synthesis and Evaluation. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , 2009, 39, 501-513.	2.9	19
10	Strategic Decisions in Complex Stakeholder Environments: A Theory of Generalized Exchange. <i>EMJ - Engineering Management Journal</i> , 2011, 23, 37-45.	2.3	16
11	Divergence and lifecycle offsets in product families with commonality. <i>Systems Engineering</i> , 2013, 16, 175-192.	2.7	16
12	Program goals for the NASA/NOAA Earth Observation Program derived from a stakeholder value network analysis. <i>Space Policy</i> , 2012, 28, 259-269.	1.5	13
13	Category-Theoretic Formulation of the Model-Based Systems Architecting Cognitive-Computational Cycle. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1945.	2.5	12
14	A network-based modeling framework for stakeholder analysis of China's energy conservation campaign. <i>Energy</i> , 2011, 36, 4996-5003.	8.8	11
15	Systems Architecting Methodology for Space Transportation Infrastructure. <i>Journal of Spacecraft and Rockets</i> , 2013, 50, 579-590.	1.9	10
16	Integrated Tradespace Analysis of Space Network Architectures. <i>Journal of Aerospace Information Systems</i> , 2015, 12, 564-578.	1.4	9
17	Problem representation of dynamic resource allocation for flexible high throughput satellites. , 2019, , .		9
18	Crafting Platform Strategy Based on Anticipated Benefits and Costs. , 2014, , 49-70.		9

#	ARTICLE	IF	CITATIONS
19	A rule-based method for scalable and traceable evaluation of system architectures. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 325-349.	2.1	8
20	Object-Process Model-Based Operational Viewpoint Specification for Aerospace Architectures. , 2020, , .		8
21	Static beam placement and frequency plan algorithms for LEO constellations. International Journal of Satellite Communications and Networking, 2021, 39, 65-77.	1.8	8
22	Assessment of architectural options for surface power generation and energy storage on human Mars missions. Acta Astronautica, 2010, 66, 1106-1112.	3.2	7
23	4.4.3 Extending Platforming to the Sequential Development of System Families. Incose International Symposium, 2006, 16, 636-651.	0.6	5
24	A methodology for portfolio-level analysis of system commonality. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2013, 24, 349-373.	2.1	5
25	A model for understanding and managing cost growth on joint programs. Acta Astronautica, 2018, 152, 59-70.	3.2	5
26	A system concept representation framework and its testing on patents, urban architectural patterns, and software patterns. Systems Engineering, 2020, 23, 492-515.	2.7	5
27	Exploring the Trade-offs of Aggregated versus Disaggregated Architectures for Environmental Monitoring in Low-Earth Orbit. , 2014, , .		4
28	Multiple Degree of Freedom Force-State Component Identification. , 1993, , .		4
29	Gravity and Suspension Effects on the Dynamics of Controlled Structures. , 1993, , .		3
30	9.1.3 Modular Building Blocks for Manned Spacecraft: A Case Study for Moon and Mars Landing Systems. Incose International Symposium, 2005, 15, 1296-1312.	0.6	3
31	3.2.3 Divergence: The Impact of Lifecycle Changes on Commonality. Incose International Symposium, 2007, 17, 475-490.	0.6	3
32	So many beams, so little time: Revenue Management in the next generation of flexible communication satellites. Acta Astronautica, 2022, 191, 479-490.	3.2	3
33	Architecting methodology for spatially and temporally distributed resource extraction systems. Systems Engineering, 2013, 16, 277-286.	2.7	2
34	Management Levers for Product Platforms. EMJ - Engineering Management Journal, 2017, 29, 128-139.	2.3	2
35	A Framework for Concept and its Testing on Patents. Incose International Symposium, 2018, 28, 1564-1577.	0.6	2
36	Lunar human landing system architecture tradespace modeling. Acta Astronautica, 2021, 181, 352-361.	3.2	2

#	ARTICLE	IF	CITATIONS
37	Model-Based System Architecting and Decision-Making. , 2022, , 1-42.		2
38	Parallel and sequential development of complex platform-based product families. , 2007, , .		1
39	Parametric Analysis of Single-Stage Earth-Departure-Stage In-Orbit Refueling. Journal of Spacecraft and Rockets, 2014, 51, 631-635.	1.9	1
40	Towards Context-Awareness in Model-Based Requirements Engineering. , 2021, , .		1