

Harrison M Kim

List of Publications by Year in descending order

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130
papers

2,469
citations

257101

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all docs

131
docs citations

131
times ranked

1360
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal Modular Remanufactured Product Configuration and Harvesting Planning for End-of-Life Products. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	1.7	9
2	Analysis of Dynamic Changes in Customer Sentiment on Product Features After the Outbreak of COVID-19 Based on Online Reviews. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	1.7	4
3	Phrase Embedding and Clustering for Sub-Feature Extraction From Online Data. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	1.7	8
4	Explainable neural network-based approach to Kano categorisation of product features from online reviews. <i>International Journal of Production Research</i> , 2022, 60, 7053-7073.	4.9	14
5	Nexus Between Life Cycle Assessment, Circularity and Sustainability Indicatorsâ€™Part II: Experimentations. <i>Circular Economy and Sustainability</i> , 2022, 2, 1399-1424.	3.3	2
6	Nexus Between Life Cycle Assessment, Circularity, and Sustainability Indicatorsâ€™Part I: a Review. <i>Circular Economy and Sustainability</i> , 2022, 2, 1143-1156.	3.3	5
7	Combining life cycle assessment and online customer reviews to design more sustainable products - Case study on a printing machine. <i>Procedia CIRP</i> , 2022, 109, 604-609.	1.0	1
8	Optimal manure utilization chain for distributed animal farms: Model development and a case study from Hangzhou, China. <i>Agricultural Systems</i> , 2021, 187, 102996.	3.2	11
9	Approach for Importanceâ€™Performance Analysis of Product Attributes From Online Reviews. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	24
10	Optimal design of manure management for intensive swine feeding operation: A modeling method based on analytical target cascading. <i>Journal of Cleaner Production</i> , 2021, 282, 124550.	4.6	11
11	Automated Keyword Filtering in Latent Dirichlet Allocation for Identifying Product Attributes From Online Reviews. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	30
12	A Discrete Event Simulation-Based Model to Optimally Design and Dimension Mobile COVID-19 Saliva-Based Testing Stations. <i>Simulation in Healthcare</i> , 2021, 16, 151-152.	0.7	6
13	Multi-tool methodology to evaluate action levers to close the loop on critical materials â€™ Application to precious metals used in catalytic converters. <i>Sustainable Production and Consumption</i> , 2021, 26, 999-1010.	5.7	1
14	Quantification of the environmental and economic benefits of the electrification of lawn mowers on the US residential market. <i>International Journal of Life Cycle Assessment</i> , 2021, 26, 1267-1284.	2.2	5
15	Comparative life cycle assessment and costing of an autonomous lawn mowing system with human-operated alternatives: implication for sustainable design improvements. <i>International Journal of Sustainable Engineering</i> , 2021, 14, 704-724.	1.9	9
16	Designing an Optimal Modular-Based Product Family Under Intellectual Property and Sustainability Considerations. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	8
17	Designing optimal COVID-19 testing stations locally: A discrete event simulation model applied on a university campus. <i>PLoS ONE</i> , 2021, 16, e0253869.	1.1	15
18	COMPARING LIFE CYCLE IMPACT ASSESSMENT, CIRCULARITY AND SUSTAINABILITY INDICATORS FOR SUSTAINABLE DESIGN: RESULTS FROM A HANDS-ON PROJECT WITH 87 ENGINEERING STUDENTS. <i>Proceedings of the Design Society</i> , 2021, 1, 681-690.	0.5	7

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19	ANALYSIS OF CUSTOMER SENTIMENT ON PRODUCT FEATURES AFTER THE OUTBREAK OF CORONAVIRUS DISEASE (COVID-19) BASED ON ONLINE REVIEWS. Proceedings of the Design Society, 2021, 1, 457-466.	0.5	0
20	AN AUTOMATED METHOD TO CONDUCT IMPORTANCE-PERFORMANCE ANALYSIS OF PRODUCT ATTRIBUTES FROM ONLINE REVIEWS - AN EXTENSION WITH A CASE STUDY. Proceedings of the Design Society, 2021, 1, 417-426.	0.5	0
21	Circular economy as a key for industrial value chain resilience in a post-COVID world: what do future engineers think?. Procedia CIRP, 2021, 103, 26-31.	1.0	7
22	Assessing the environmental and economic sustainability of autonomous systems: A case study in the agricultural industry. Procedia CIRP, 2020, 90, 209-214.	1.0	9
23	Research perspectives in ecodesign. Design Science, 2020, 6, .	1.1	19
24	Impact of Generational Commonality of Short Life Cycle Products in Manufacturing and Remanufacturing Processes. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	10
25	Importance-Performance Analysis of Product Attributes Using Explainable Deep Neural Network From Online Reviews. , 2020, , .		2
26	Optimal Product Family Architecture Design and Commonality Decision for Sustainability and Intellectual Property Protection. , 2020, , .		2
27	Improving the Accuracy and Diversity of Feature Extraction From Online Reviews Using Keyword Embedding and Two Clustering Methods. , 2020, , .		4
28	Switching From Petroleum- to Bio-Based Plastics: Visualization Tools to Screen Sustainable Material Alternatives During the Design Process. , 2020, , .		1
29	Automatic Identification of Product Usage Contexts from Online Customer Reviews. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 2507-2516.	0.6	3
30	A Data-Driven Methodology to Construct Customer Choice Sets Using Online Data and Customer Reviews. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	19
31	A Weighted Set Cover Problem for Product Family Design to Maximize the Commonality of Products. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 2951-2960.	0.6	1
32	Impact of Generational Commonality of Short-Life Cycle Products in Manufacturing and Remanufacturing Processes. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 3331-3340.	0.6	2
33	Multiple Target Exploration Approach for Design Exploration Using a Swarm Intelligence and Clustering. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	2
34	Greedy robust wind farm layout optimization with feasibility guarantee. Engineering Optimization, 2019, 51, 1152-1167.	1.5	8
35	A Data-Driven Approach to Product Usage Context Identification From Online Customer Reviews. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	20
36	Framing Product Circularity Performance for Optimized Green Profit. , 2019, , .		7

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37	A tight upper bound for quadratic knapsack problems in grid-based wind farm layout optimization. Engineering Optimization, 2018, 50, 367-381.	1.5	3
38	A Systematic Methodology Based on Word Embedding for Identifying the Relation Between Online Customer Reviews and Sales Rank. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	28
39	Identifying Sentiment-Dependent Product Features from Online Reviews. , 2017, , 685-701.		1
40	Optimization of Piping Supports and Supporting Structure. Journal of Pressure Vessel Technology, Transactions of the ASME, 2017, 139, .	0.4	0
41	Two Stage Mini-Max Algorithm for Grid-Based Wind Farm Layout Optimization. , 2017, , .		0
42	A Systematic Approach to Identifying a Set of Feasible Designs. , 2017, , .		0
43	Green profit maximization through integrated pricing and production planning for a line of new and remanufactured products. Journal of Cleaner Production, 2017, 142, 3454-3470.	4.6	56
44	Value of Bootstrapping Staged Deployment of Infrastructure: Case Study in Space Infrastructure Deployment. , 2017, , .		0
45	Predictive Model Selection for Forecasting Product Returns. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	11
46	Modeling the Time-Varying Advantages of a Remanufactured Product: Is "Reman" Better Than "Brand New"? I. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	9
47	A Tight Upper Bound for Grid-Based Wind Farm Layout Optimization. , 2016, , .		0
48	Identifying the Relations Between Product Features and Sales Rank From Online Reviews. , 2016, , .		1
49	A Mixed Integer Linear Programming Formulation for Unrestricted Wind Farm Layout Optimization. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	4
50	Product family architecture design with predictive, data-driven product family design method. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2016, 27, 5-21.	1.2	47
51	Predictive Modeling of Product Returns for Remanufacturing. , 2015, , .		0
52	Design for life-cycle profit with simultaneous consideration of initial manufacturing and end-of-life remanufacturing. Engineering Optimization, 2015, 47, 18-35.	1.5	37
53	A Mixed Integer Linear Programming Formulation for Unrestricted Wind Farm Layout Optimization. , 2015, , .		0
54	Predictive usage mining for life cycle assessment. Transportation Research, Part D: Transport and Environment, 2015, 38, 125-143.	3.2	9

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55	Wind farm layout design optimization through multi-scenario decomposition with complementarity constraints. <i>Engineering Optimization</i> , 2014, 46, 1669-1693.	1.5	8
56	Continuous Preference Trend Mining for Optimal Product Design With Multiple Profit Cycles. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2014, 136, .	1.7	22
57	Demand Trend Mining for Predictive Life Cycle Design. <i>Journal of Cleaner Production</i> , 2014, 68, 189-199.	4.6	44
58	Predictive, Data-Driven Product Family Design. , 2014, , .		0
59	Product Family Design and Recovery for Lifecycle. , 2014, , 707-735.		0
60	Iteration Complexity of the Alternating Direction Method of Multipliers for Quasi-Separable Problems in Multi-Disciplinary Design Optimization. , 2014, , .		0
61	Predictive Usage Mining for Sustainability of Complex Systems Design. , 2014, , .		1
62	Market Positioning of Remanufactured Products With Optimal Planning for Part Upgrades. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2013, 135, .	1.7	32
63	Addressing supply-side risk in uncertain power markets: stochastic Nash models, scalable algorithms and error analysis. <i>Optimization Methods and Software</i> , 2013, 28, 1095-1138.	1.6	40
64	Continuous Preference Trend Mining for Optimal Product Design With Multiple Profit Cycles. , 2013, , .		1
65	Green Profit Maximization Through Joint Pricing and Production Planning of New and Remanufactured Products. , 2013, , .		1
66	Economic and Environmental Impacts of Product Service Lifetime: A Life-Cycle Perspective. <i>Lecture Notes in Production Engineering</i> , 2013, , 177-189.	0.3	9
67	Incorporating security considerations into optimal product architecture and component sharing decision in product family design. <i>Engineering Optimization</i> , 2012, 44, 55-74.	1.5	8
68	Pre-Life and End-of-Life Combined Profit Optimization With Predictive Product Lifecycle Design. , 2012, , .		2
69	Life Cycle Assessment of Complex Heavy Duty Equipment. , 2012, , .		4
70	To Extend, or to Shorten: Optimal Lifetime Planning. , 2012, , .		0
71	Wind Farm Layout Design Optimization Through Multidisciplinary Design Optimization with Complementarity Constraints. , 2012, , .		0
72	Formulating Second-Hand Market Value as a Function of Product Specifications, Age, and Conditions. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2012, 134, .	1.7	20

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73	Analytical Target Cascading for End-of-Life Recovery Management. , 2012, , .		0
74	Comparative Life Cycle Assessment of Complex Heavy-Duty Off-Road Equipment. , 2012, , .		3
75	A Functionallyâ€œAware Product Schematic Clustering Algorithm. , 2012, , .		1
76	Market-Driven Positioning of Remanufactured Product for Design for Remanufacturing With Part Upgrade. , 2011, , .		0
77	E-Waste Stream Analysis and Design Implications. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	16
78	Strategic behavior in power markets under uncertainty. Energy Systems, 2011, 2, 115-141.	1.8	22
79	Hybrid Power Generation System Design Optimization Based on a Markovian Reliability Analysis Approach. , 2011, , .		0
80	Trend Mining for Predictive Product Design. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	44
81	Assessing product family design from an end-of-life perspective. Engineering Optimization, 2011, 43, 233-255.	1.5	41
82	Optimal component sharing in a product family by simultaneous consideration of minimum description length and impact metric. Engineering Optimization, 2011, 43, 175-192.	1.5	21
83	Simultaneous Selective Disassembly and End-of-Life Decision Making for Multiple Products That Share Disassembly Operations. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	44
84	Varying Lifecycle Lengths Within a Product Take-Back Portfolio. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	25
85	Incorporating Security Considerations Into Optimal Product Architecture and Component Sharing Decision in Product Family Design. , 2010, , .		2
86	Capturing Emergent Behavior In Multi-Response Systems Through Data Trend Mining. , 2010, , .		0
87	Effect of Product Design on Buyback Price of End-of-Use Consumer Electronics. , 2010, , .		0
88	Parallel, Multistage Model for Enterprise System Planning and Design. IEEE Systems Journal, 2010, 4, 6-14.	2.9	5
89	Hybrid Power/Energy Generation Through Multidisciplinary and Multilevel Design Optimization With Complementarity Constraints. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	10
90	Trending Mining for Predictive Product Design. , 2010, , .		1

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91	E-Waste Stream Analysis and Design Implications. , 2010, , .		0
92	Integrated Sustainable Life Cycle Design: A Review. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	253
93	Evaluating End-of-Life Recovery Profit by a Simultaneous Consideration of Product Design and Recovery Network Design. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	31
94	A ReliefF attribute weighting and X-means clustering methodology for top-down product family optimization. Engineering Optimization, 2010, 42, 593-616.	1.5	20
95	A Regularized Inexact Penalty Decomposition Algorithm for Multidisciplinary Design Optimization Problems With Complementarity Constraints. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	23
96	Design Optimization of Hybrid Power/Energy Generation Systems with Diesel Backups through Multistage Optimization With Complementarity Constraints. , 2010, , .		0
97	Hybrid Power/Energy Generation System Design Through Multistage Design Optimization Problem With Complementarity Constraints. , 2010, , .		0
98	Selective Disassembly and Simultaneous End-of-Life Decision Making for Multiple Products. , 2009, , .		1
99	A Comparative Study of Data-Intensive Demand Modeling Techniques in Relation to Product Design and Development. , 2009, , .		2
100	Varying Lifecycle Lengths Within a Portfolio for Product Take-Back. , 2009, , .		3
101	Data-Driven Decision Tree Classification for Product Portfolio Design Optimization. Journal of Computing and Information Science in Engineering, 2009, 9, .	1.7	47
102	A Regularized Inexact Penalty Decomposition Algorithm for Multidisciplinary Design Optimization Problem With Complementarity Constraints. , 2009, , .		2
103	Sustainable Product Design by a Simultaneous Consideration of Pre-Life and End-of-Life of Products. , 2009, , .		1
104	Product Architecture Design and Reconfiguration using Expectation Maximization and Decision Tree Classification. , 2008, , .		0
105	Analytical Target Cascading for Multi-Mode Design Optimization: An Engine Case Study. , 2008, , .		4
106	Multidisciplinary and Multilevel Design Optimization Problems with Equilibrium Constraints. , 2008, , .		0
107	Data-Mining Driven Reconfigurable Product Family Design Framework for Aerodynamic Particle Separators. , 2008, , .		0
108	Parallel, multistage model for enterprise system of systems. , 2008, , .		0

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109	Optimal Product Portfolio Formulation by Merging Predictive Data Mining With Multilevel Optimization. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	34
110	3.1.1 System of Systems Engineering Model by Multistage Analytical Target Cascading. Incose International Symposium, 2007, 17, 409-423.	0.2	2
111	Product Family Concept Generation and Validation Through Predictive Decision Tree Data Mining and Multi-Level Optimization. , 2007, , .		2
112	Pseudo-Hierarchical Multistage Model for System of Systems Design and Operations. , 2007, , .		0
113	System of Systems Optimization by Pseudo-Hierarchical Multistage Model. , 2006, , .		7
114	Multilevel Optimization for Enterprise Driven Decision-Based Product Design. , 2006, , .		4
115	Optimal Product Portfolio Formulation: Merging Predictive Data Mining with Analytical Target Cascading. , 2006, , .		1
116	Multilevel Optimization Considering Variability in Design Variables of Multidisciplinary System. , 2006, , .		2
117	Lagrangian Coordination for Enhancing the Convergence of Analytical Target Cascading. , 2006, , .		3
118	Analytical Target Setting: An Enterprise Context in Optimal Product Design. Journal of Mechanical Design, Transactions of the ASME, 2006, 128, 4-13.	1.7	39
119	Probabilistic Analytical Target Cascading: A Moment Matching Formulation for Multilevel Optimization Under Uncertainty. Journal of Mechanical Design, Transactions of the ASME, 2006, 128, 991.	1.7	88
120	Target Exploration for Disconnected Feasible Regions in Enterprise-Driven Multilevel Product Design. AIAA Journal, 2006, 44, 67-77.	1.5	29
121	Lagrangian Coordination for Enhancing the Convergence of Analytical Target Cascading. AIAA Journal, 2006, 44, 2197-2207.	1.5	78
122	Analytical Target Cascading in Product Family Design. , 2006, , 225-240.		5
123	Two-Stage System of Systems Model by Linking System Design With Resource Allocation. , 2006, , .		2
124	Probabilistic Analytical Target Cascading: A Moment Matching Formulation for Multilevel Optimization Under Uncertainty. , 2005, , 1173.		15
125	Target Feasibility Achievement in Enterprise-Driven Hierarchical Multidisciplinary Design. , 2004, , .		7
126	Analytical Target Cascading in Automotive Vehicle Design. Journal of Mechanical Design, Transactions of the ASME, 2003, 125, 481-489.	1.7	211

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127	Target Cascading in Optimal System Design. Journal of Mechanical Design, Transactions of the ASME, 2003, 125, 474-480.	1.7	413
128	Analytical Target Setting: An Enterprise Context in Optimal Product Design. , 2003, , .		4
129	Target cascading in vehicle redesign: a class VI truck study. International Journal of Vehicle Design, 2002, 29, 199.	0.1	108
130	Extension of the target cascading formulation to the design of product families. Structural and Multidisciplinary Optimization, 2002, 24, 293-301.	1.7	91