

# Joshua David Summers

## List of Publications by Year in descending order

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Version: 2024-02-01

263  
papers

2,816  
citations

279798

23  
h-index

289244

40  
g-index

263  
all docs

263  
docs citations

263  
times ranked

1390  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Repurposing metal additive manufacturing support structures for reduction of residual stress deformation. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 3963-3973.          | 3.0 | 2         |
| 2  | Sampling in design research: Eight key considerations. <i>Design Studies</i> , 2022, 78, 101077.   | 3.1 | 48        |
| 3  | Smart designing of smart systems. <i>Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM</i> , 2021, 35, 129-131.   | 1.1 | 3         |
| 4  | Analysis of the Impact of Requirement-Sketch Sequencing on Requirement Generation in Conceptual Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .                         | 2.9 | 3         |
| 5  | WHEN WORLDS COLLIDE – A COMPARATIVE ANALYSIS OF ISSUES IMPEDING ADOPTION OF AGILE FOR HARDWARE. <i>Proceedings of the Design Society</i> , 2021, 1, 3451-3460.   | 0.8 | 2         |
| 6  | A TOPOLOGICAL FORMALISM FOR QUANTITATIVE ANALYSIS OF DESIGN SPACES. <i>Proceedings of the Design Society</i> , 2021, 1, 293-302.   | 0.8 | 0         |
| 7  | A Case Study in Line Balancing and Simulation. <i>Procedia Manufacturing</i> , 2020, 48, 71-81.  | 1.9 | 1         |
| 8  | Towards the formalization of non-functional requirements in conceptual design. <i>Research in Engineering Design - Theory, Applications, and Concurrent Engineering</i> , 2020, 31, 449-469.                 | 2.1 | 10        |
| 9  | Manufacturing for Design: A sustaining approach to drive manufacturing process evolution, then innovation. <i>Procedia Manufacturing</i> , 2020, 48, 1136-1142.  | 1.9 | 6         |
| 10 | Function Modeling: A Modeling Behavior Analysis of Pause Patterns. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .  | 2.9 | 5         |
| 11 | Designing design prompts: a systematic approach to support engineering design research. <i>Journal of Design Research</i> , 2020, 18, 327.   | 0.1 | 0         |
| 12 | Design guidelines as ideation tools – a user study on exploring the subjectivity of unit-cell design guidelines. <i>International Journal of Design Creativity and Innovation</i> , 2019, 7, 50-69.          | 1.2 | 2         |
| 13 | Mapping problem and requirements to final solution: A document analysis of capstone design projects. <i>International Journal of Mechanical Engineering Education</i> , 2019, 47, 338-370.                   | 1.0 | 8         |
| 14 | A Systematic Approach to Evaluating Design Prompts in Supporting Experimental Design Research. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , 2019, 1, 2755-2764. | 0.6 | 5         |
| 15 | Size effects in lattice-structured cellular materials: material distribution. <i>Journal of Materials Science</i> , 2019, 54, 11858-11877.   | 3.7 | 5         |
| 16 | Investigating the impact of requirements elicitation and evolution on course performance in a pre-capstone design course. <i>Journal of Engineering Design</i> , 2019, 30, 155-179.                          | 2.3 | 9         |
| 17 | A Unit Cell Design Guideline Development Method for Meso-Scaled Periodic Cellular Material Structures. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2019, 141, .       | 1.4 | 5         |
| 18 | Rule authoring for vehicle configuration management: an experimental study on graph-based representations. <i>International Journal of Mass Customisation</i> , 2019, 5, 130-146.                            | 1.2 | 1         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Size effects in lattice-structured cellular materials: edge softening effects. Journal of Materials Science, 2019, 54, 3942-3959.  | 3.7 | 9         |
| 20 | Application of a Controlled Assembly Vocabulary: Modeling a Home Appliance Transfer Line. IFIP Advances in Information and Communication Technology, 2019, , 439-446.                              | 0.7 | 1         |
| 21 | Rule authoring for vehicle configuration management: an experimental study on graph-based representations. International Journal of Mass Customisation, 2019, 5, 130.                              | 1.2 | 0         |
| 22 | How Function Ordering Within Morphological Charts Influence Exploration1. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .   | 2.9 | 2         |
| 23 | Requirements Culture: A Case Study on Product Development and Requirement Perspectives. , 2019, , .  |     | 3         |
| 24 | Impact of Chaining Method and Level of Completion on Accuracy of Function Structure-Based Market Price Prediction Models. Journal of Computing and Information Science in Engineering, 2019, 19, . | 2.7 | 2         |
| 25 | Investigating Usability of an Innovation Management Decision Aid. , 2019, , .  |     | 0         |
| 26 | A Physics-Based Formal Vocabulary of Energy Verbs for Function Modeling. , 2019, , .   |     | 2         |
| 27 | Application of a Protocol to Observe Leadership Behaviors in Engineering Design Teams. , 2019, , .   |     | 1         |
| 28 | Requirement Generation: Lecture Intervention Impact on Variety and Novelty. , 2019, , .  |     | 2         |
| 29 | Effects of Metal Foam Porosity, Pore Size, and Ligament Geometry on Fluid Flow. Journal of Thermal Science and Engineering Applications, 2018, 10, .   | 1.5 | 5         |
| 30 | Size effects in lattice structures and a comparison to micropolar elasticity. International Journal of Solids and Structures, 2018, 143, 245-261.  | 2.7 | 46        |
| 31 | Function Modeling: An Analysis of Pause Patterns in Modeling Activities. , 2018, , .   |     | 5         |
| 32 | Establishing a Protocol to Observe Leadership Behaviors Within Engineering Design Teams. , 2018, , .   |     | 1         |
| 33 | Understanding Team Personality Evolution in Student Engineering Design Teams Using the Five Factor Model. , 2018, , .  |     | 1         |
| 34 | Systematic Redesign of Air Compressor for Noise Reduction: A Case Study. , 2018, , .   |     | 0         |
| 35 | Function Ordering Within Morphological Charts: An Experimental Study. , 2018, , .  |     | 0         |
| 36 | A cost estimation model to support automation decision in assembly systems design. International Journal of Production Research, 2018, 56, 7426-7443.  | 7.5 | 5         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Configuration and options management processes and tools: an automotive OEM case study. Journal of Manufacturing Technology Management, 2017, 28, 146-168.   | 6.4 | 6         |
| 38 | Cost Estimation Model for Polyacrylonitrile-Based Carbon Fiber Manufacturing Process. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .   | 2.2 | 10        |
| 39 | An Experimental Study on the Influence That Failure Number, Specialization, and Controls Have on Confidence in Predicting System Failures1. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .   | 2.9 | 3         |
| 40 | Using Design Requirements for Environmental Assessment of Products: A Historical Based Method. Procedia CIRP, 2017, 61, 69-74.   | 1.9 | 7         |
| 41 | Supporting Vehicle Option Change Management Through a Graph-Based Visualization Tool. Journal of Computing and Information Science in Engineering, 2017, 17, .   | 2.7 | 0         |
| 42 | A verification and validation planning method to address change propagation effects in engineering design and manufacturing. Concurrent Engineering Research and Applications, 2017, 25, 151-162.  | 3.2 | 8         |
| 43 | A protocol for modeling and tracking engineering design process through structural complexity metrics applied against communication networks. Concurrent Engineering Research and Applications, 2017, 25, 108-122.   | 3.2 | 2         |
| 44 | Thoughts on benchmarking of function modeling: Why and how. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2017, 31, 393-400.   | 1.1 | 4         |
| 45 | Evaluating the Use of Artificial Neural Networks and Graph Complexity to Predict Automotive Assembly Quality Defects. Journal of Computing and Information Science in Engineering, 2017, 17, .   | 2.7 | 10        |
| 46 | Function in engineering: Benchmarking representations and models. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2017, 31, 401-412.   | 1.1 | 13        |
| 47 | Comparing function structures and pruned function structures for market price prediction: An approach to benchmarking representation inferencing value. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2017, 31, 550-566. | 1.1 | 10        |
| 48 | A Case Study of the Effects of Design Project Length on Team Collaboration and Leadership in Senior Mechanical Engineering Projects. , 2017, , .   |     | 0         |
| 49 | Developing a Method for Classifying Design Enablers. , 2017, , .   |     | 0         |
| 50 | Impact of Chaining Method and Level of Completion on Accuracy of Function Structure-Based Market Price Prediction Models. , 2017, , .  |     | 0         |
| 51 | Part Change Management: A Case Study on Automotive OEM Development and Production Perspectives. , 2017, , .  |     | 3         |
| 52 | Function Modeling: Comparison of Chaining Methods Using Protocol Study and Designer Study. , 2017, , .   |     | 1         |
| 53 | A User Study on Exploring the Sequencing of Unit Cell Design Guidelines. , 2017, , .   |     | 3         |
| 54 | Functional Thinking: A Protocol Study to Map Modeling Behavior of Designers. , 2017, , 339-357.  |     | 3         |

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|----|---|-----|-----------|
| 55 | Using Graph Complexity Connectivity Method to Predict Information from Design Representations: A Comparative Study. , 2017, , 667-683.  |     | 4         |
| 56 | Standardized Vocabularies for Assembly Systems Modelling and Automation Alternatives Description. , 2016, , .   |     | 1         |
| 57 | A Taxonomy for Representing Prismatic Cellular Materials. , 2016, , .   |     | 2         |
| 58 | AI EDAM Special Issue, August 2017, Vol. 31, No. 3. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2016, 30, 329-330.                            | 1.1 | 0         |
| 59 | Developing Design Guidelines for Meso-Scaled Periodic Cellular Material Structures Under Shear Loading. , 2016, , .   |     | 7         |
| 60 | Cost Estimation Model for PAN Based Carbon Fiber Manufacturing Process. , 2016, , .   |     | 7         |
| 61 | Configuration Management Through Satisfiability. Procedia CIRP, 2016, 44, 204-209.  | 1.9 | 2         |
| 62 | A Knowledge Based FMEA to Support Identification and Management of Vehicle Flexible Component Issues. Procedia CIRP, 2016, 44, 157-162.   | 1.9 | 18        |
| 63 | Evaluation of Empirical Design Studies and Metrics. , 2016, , 13-39.  |     | 7         |
| 64 | Function Modeling: A Study of Sequential Model Completion Based on Count and Chaining of Functions. , 2016, , .   |     | 3         |
| 65 | Evaluating the Use of Artificial Neural Networks, Graph Theory, and Complexity Theory to Predict Automotive Assembly Defects. , 2016, , .   |     | 2         |
| 66 | Impact of Level of Detail and Information Content on Accuracy of Function Structure-Based Market Price Prediction Models. , 2016, , .   |     | 6         |
| 67 | Accuracy and Precision Analysis of the Graph Complexity Connectivity Method. Procedia CIRP, 2016, 44, 163-168.  | 1.9 | 13        |
| 68 | A review of cost estimation models for determining assembly automation level. Computers and Industrial Engineering, 2016, 98, 246-259.  | 6.3 | 20        |
| 69 | Clemson Engineering Design Applications and Research (CEDAR) Group Clemson University, Clemson, SC, USA. , 2016, , 151-168.   |     | 0         |
| 70 | The Effect of Honeycomb Core Geometry on the Sound Transmission Performance of Sandwich Panels. Journal of Vibration, Acoustics, Stress, and Reliability in Design, 2015, 137, .      | 2.0 | 45        |
| 71 | Assembly Modelling and Time estimating during the early phase of Assembly Systems Design. IFAC-PapersOnLine, 2015, 48, 81-87.   | 0.9 | 2         |
| 72 | An experimental study: analyzing requirement type influence on novelty and variety of generated solutions. International Journal of Design Creativity and Innovation, 2015, 3, 61-77. | 1.2 | 14        |

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|----|--|-----|-----------|
| 73 | Methods for Selecting Level of Automation: A Critical Comparison of Approaches and Integrated Proposal. , 2015, , .  |     | 0         |
| 74 | Camels and Fennec Foxes: A Case Study on Biologically Inspired Design of Sand Traction Systems. , 2015, , .  |     | 1         |
| 75 | Requirements change: Understanding the type of changes in the requirements document of novice designers. International Journal of Mechanical Engineering Education, 2015, 43, 286-304.                       | 1.0 | 0         |
| 76 | Numerical Methods for the Design of Meso-Structures: A Comparative Review. , 2015, , .   |     | 7         |
| 77 | Comparative Study of Optimization Techniques in Sizing Mesostructures for Use in NonPneumatic Tires. Journal of Computing and Information Science in Engineering, 2015, 15, .                                | 2.7 | 15        |
| 78 | Requirements Evolution: Understanding the Type of Changes in the Requirement Document of Novice Designers. Smart Innovation, Systems and Technologies, 2015, , 471-481.                                      | 0.6 | 4         |
| 79 | Graph Visualization Styles for Use in Configuration Management: A User Study. , 2015, , .  |     | 2         |
| 80 | Off-Vehicle Tire Traction and Endurance Testing System: System Upgrade Design. , 2014, , .   |     | 1         |
| 81 | Evolution of Meso-Structures for Non-Pneumatic Tire Development: A Case Study. , 2014, , .   |     | 9         |
| 82 | A Case Study of Configuration Management Methods in a Major Automotive OEM. , 2014, , .  |     | 5         |
| 83 | Requirements Evolution: Relating Functional and Non-Functional Requirement Change on Student Project Success. , 2014, , .  |     | 12        |
| 84 | Assembly Time Estimation: Assembly Mate Based Structural Complexity Metric Predictive Modeling. Journal of Computing and Information Science in Engineering, 2014, 14, .                                     | 2.7 | 20        |
| 85 | Comparison of Graph Generation Methods for Structural Complexity Based Assembly Time Estimation. Journal of Computing and Information Science in Engineering, 2014, 14, .                                    | 2.7 | 9         |
| 86 | A modelling language for assembly sequences representation, scheduling and analyses. International Journal of Production Research, 2014, 52, 3986-4006.  | 7.5 | 10        |
| 87 | Comparative analysis of requirements change prediction models: manual, linguistic, and neural network. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 139-156. | 2.1 | 19        |
| 88 | Manufacturing Assembly Time Estimation Using Structural Complexity Metric Trained Artificial Neural Networks. Journal of Computing and Information Science in Engineering, 2014, 14, .                       | 2.7 | 11        |
| 89 | Development of a Design for Manufacturing Rules Database for Use in Instruction of DFM Practices. , 2014, , .  |     | 5         |
| 90 | Impact of Requirements Elicitation Activity on Idea Generation: A Designer Study. , 2014, , .  |     | 2         |

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|-----|---|-----|-----------|
| 91  | Optimisation of geometry and material properties of a non-pneumatic tyre for reducing rolling resistance. International Journal of Vehicle Design, 2014, 66, 193.                         | 0.3 | 50        |
| 92  | Analyzing Requirement Type Influence on Concept Quality and Quantity During Ideation: An Experimental Study. , 2014, , .  |     | 4         |
| 93  | Protocol Analysis: Studying Physical Manipulatives During Conceptual Design. , 2014, , .  |     | 1         |
| 94  | Development of a geometric model retrieval system: a design exemplar case study. International Journal of Computer Aided Engineering and Technology, 2014, 6, 113.                        | 0.2 | 3         |
| 95  | A Pilot Protocol Study on How Designers Construct Function Structures in Novel Design. , 2014, , 247-264.   |     | 8         |
| 96  | Tracking Project Health Using Completeness and Specificity of Requirements: A Case Study. , 2014, , .   |     | 4         |
| 97  | Investigating the use of design methods by capstone design students at Clemson University. International Journal of Technology and Design Education, 2013, 23, 1079-1091.                 | 2.6 | 9         |
| 98  | Automated Navigation of Method Time Measurement Tables for Automotive Assembly Line Planning. , 2013, , .   |     | 2         |
| 99  | Identifying requirements for physics-based reasoning on function structure graphs. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2013, 27, 291-299. | 1.1 | 8         |
| 100 | Assembly time modelling through connective complexity metrics. International Journal of Computer Integrated Manufacturing, 2013, 26, 955-967.   | 4.6 | 25        |
| 101 | Design Enabler to Recognize Duplicate Geometries in CAD Assemblies. Computer-Aided Design and Applications, 2013, 10, 889-904.  | 0.6 | 2         |
| 102 | A study of designer familiarity with product and user during requirement elicitation. International Journal of Computer Aided Engineering and Technology, 2013, 5, 139.                   | 0.2 | 7         |
| 103 | A Formal Representation of Function Structure Graphs for Physics-Based Reasoning. Journal of Computing and Information Science in Engineering, 2013, 13, .                                | 2.7 | 16        |
| 104 | Evaluation of System-Directed Multimodal Systems for Vehicle Inspection. Journal of Computing and Information Science in Engineering, 2013, 13, .   | 2.7 | 2         |
| 105 | A Comparison of Design Approaches to Meso-Structure Development. , 2013, , .  |     | 6         |
| 106 | Experimental Studies on Traction Concepts: Endurance and Obstacle Testing. , 2013, , .  |     | 1         |
| 107 | Physics-Based Reasoning in Conceptual Design Using a Formal Representation of Function Structure Graphs. Journal of Computing and Information Science in Engineering, 2013, 13, .         | 2.7 | 16        |
| 108 | An Energy-Based Design Approach for a Meso-Structure With High Shear Flexure. , 2013, , .   |     | 4         |

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| 109 | Automotive lightweight engineering: a method for identifying lazy parts. International Journal of Vehicle Design, 2013, 63, 364.  | 0.3 | 5         |
| 110 | User Study: Influence of Number of Design Errors on Ability to Predict Performance With and Without Controls. , 2013, , .   |     | 1         |
| 111 | Can a Pre-sketching Activity Improve Idea Generation?. Lecture Notes in Production Engineering, 2013, , 583-592.  | 0.4 | 13        |
| 112 | Complexity Connectivity Metrics â€“ Predicting Assembly Times with Low Fidelity Assembly CAD Models. Lecture Notes in Production Engineering, 2013, , 777-786.            | 0.4 | 8         |
| 113 | Correlating Problem/Process Exam Question Complexity to Anticipated Effort: A Modeling Protocol. , 2013, , .  |     | 1         |
| 114 | Rolling Resistance of a Nonpneumatic Tire Having a Porous Elastomer Composite Shear Band. Tire Science and Technology, 2013, 41, 154-173.                                 | 0.4 | 43        |
| 115 | Comparison of Graph Generation Methods for Structural Complexity Based Assembly Time Estimation. , 2013, , .  |     | 0         |
| 116 | Knowledge Management for Semi-Automated Automotive Assembly Instruction Authorship and Translation. , 2013, , .   |     | 1         |
| 117 | Design of Honeycombs for Modulus and Yield Strain in Shear. Journal of Engineering Materials and Technology, Transactions of the ASME, 2012, 134, .                       | 1.4 | 35        |
| 118 | Computer-aided design versus sketching: An exploratory case study. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2012, 26, 317-335. | 1.1 | 29        |
| 119 | A user study of interpretability of engineering design representations. Journal of Engineering Design, 2012, 23, 443-468.   | 2.3 | 63        |
| 120 | Evaluation of a customizable haptic feedback system for ground vehicle steer-by-wire interfaces. , 2012, , .  |     | 9         |
| 121 | Predicting requirement change propagation, using higher order design structure matrices: an industry case study. Journal of Engineering Design, 2012, 23, 905-926.        | 2.3 | 92        |
| 122 | Concept Exploration Through Morphological Charts: An Experimental Study. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .                             | 2.9 | 34        |
| 123 | Evaluating and Comparing Functional and Geometric Complexity of Products. , 2012, , .   |     | 2         |
| 124 | Reasoning: Source of Variability in the Boothroyd and Dewhurst Assembly Time Estimation Method. , 2012, , .   |     | 5         |
| 125 | Reasoning: Installation Process Step Instructions as an Automated Assembly Time Estimation Tool. , 2012, , .  |     | 3         |
| 126 | Representation: Structural Complexity of Assemblies to Create Neural Network Based Assembly Time Estimation Models. , 2012, , .   |     | 5         |



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|-----|---|-----|-----------|
| 127 | A case study of the development of a design enabler tool to support frame analysis for Wright Metal Products, a US SME. International Journal of Computer Aided Engineering and Technology, 2012, 4, 321. | 0.2 | 8         |
| 128 | Representation: Formal Development and Computational Recognition of Localized Requirement Change Types. , 2012, , .   |     | 1         |
| 129 | Reasons for change propagation: a case study in an automotive OEM. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2012, 23, 291-303.                                  | 2.1 | 67        |
| 130 | Design of Honeycomb Mesostructures for Crushing Energy Absorption. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .   | 2.9 | 37        |
| 131 | The Effects of Language and Pruning on Function Structure Interpretability. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .  | 2.9 | 18        |
| 132 | Mobile devices within manufacturing environments: a BMW applicability study. International Journal on Interactive Design and Manufacturing, 2012, 6, 101-111.   | 2.2 | 24        |
| 133 | Representations: Reconciling Design for Disassembly Rules With Design for Manufacturing Rules. , 2012, , .  |     | 2         |
| 134 | Representation: Extracting Mate Complexity From Assembly Models to Automatically Predict Assembly Times. , 2012, , .  |     | 10        |
| 135 | Aluminum Taper Bristle-Shaped Shear Band for a Nonpneumatic Tire. Tire Science and Technology, 2012, 40, 152-170.   | 0.4 | 8         |
| 136 | Representation: Metrics for Analyzing Sketches " A Critical Survey. , 2012, , .   |     | 2         |
| 137 | Shear Compliant Hexagonal Cellular Solids With a Shape Memory Alloy. , 2011, , .  |     | 6         |
| 138 | Application of a Lightweight Engineering Tool: Lazy Parts Analysis and Redesign of a Remote Controlled Car. , 2011, , .   |     | 3         |
| 139 | Complexity as a Surrogate Mapping Between Function Models and Market Value. , 2011, , .   |     | 10        |
| 140 | Comparative Studies in Traction Concepts. , 2011, , .   |     | 0         |
| 141 | Numerical Simulation of Tread Effects on the Interaction Between Cellular Shear Band Based Non-Pneumatic Tire and Sand. , 2011, , .   |     | 7         |
| 142 | Numerical Investigation of Effect of Membrane Thickness on the Performance of Cellular Shear Band Based Non-Pneumatic Tire. , 2011, , .   |     | 2         |
| 143 | Compliant hexagonal periodic lattice structures having both high shear strength and high shear strain. Materials & Design, 2011, 32, 512-524.   | 5.1 | 133       |
| 144 | A protocol to formalise function verbs to support conservation-based model checking. Journal of Engineering Design, 2011, 22, 765-788.  | 2.3 | 27        |

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| 145 | An empirical study of the expressiveness of the functional basis. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2011, 25, 273-287.                | 1.1 | 22        |
| 146 | Evaluation and Comparison of Two Design for Assembly Methods: Subjectivity of Information Inputs. , 2011, , .   |     | 9         |
| 147 | Optimization of Honeycomb Cellular Meso-Structures for High Speed Impact Energy Absorption. , 2011, , .   |     | 4         |
| 148 | Optimization of a Non-Pneumatic Tire for Reduced Rolling Resistance. , 2011, , .  |     | 5         |
| 149 | Hyperelastic Constitutive Modeling of Hexagonal Honeycombs Subjected to In-Plane Shear Loading. Journal of Engineering Materials and Technology, Transactions of the ASME, 2011, 133, . | 1.4 | 30        |
| 150 | A Coding Scheme for Analyzing Capstone Design Reports: Problem and Solution Descriptions. , 2011, , .   |     | 5         |
| 151 | Mapping Problem and Requirements to Final Solution: A Document Analysis of Capstone Design Projects. , 2011, , .  |     | 2         |
| 152 | Cross Analysis of Metal Foam Design Parameters for Achieving Desired Fluid Flow. , 2011, , .  |     | 3         |
| 153 | Application of Meshless Integral Method in Soil Mechanics. , 2011, , .  |     | 0         |
| 154 | Tool and Information Centric Design Process Modeling. , 2011, , 80-105.   |     | 0         |
| 155 | Topological Information Content and Expressiveness of Function Models in Mechanical Design. Journal of Computing and Information Science in Engineering, 2010, 10, .                    | 2.7 | 22        |
| 156 | A Customizable Steer-By-Wire Interface for Ground Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 656-661.                             | 0.4 | 4         |
| 157 | Requirement Modeling Systems for Mechanical Design: A Systematic Method for Evaluating Requirement Management Tools and Languages. , 2010, , .  |     | 8         |
| 158 | Investigation of Design Tools as Complexity Management Techniques. , 2010, , .  |     | 3         |
| 159 | Development of Endurance Testing Apparatus Simulating Wheel Dynamics and Environment on Lunar Terrain. , 2010, , .  |     | 4         |
| 160 | Exploration of Discrete Element Method to Dynamically Model Sandy Terrain. , 2010, , .  |     | 4         |
| 161 | Effects of Cellular Shear Bands on Interaction between a Non-pneumatic Tire and Sand. , 2010, , .   |     | 5         |
| 162 | Evaluation of the functional basis using an information theoretic approach. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2010, 24, 87-105.       | 1.1 | 27        |

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|-----|--|-----|-----------|
| 163 | Assembly Time Modeling through Connective Complexity Metrics. , 2010, , .  |     | 6         |
| 164 | Workshop for Identifying Assembly Time Savings: An OEM Empirical Study. , 2010, , .  |     | 0         |
| 165 | Experimental study of influence of group familiarity and information sharing on design review effectiveness. Journal of Engineering Design, 2010, 21, 111-126. | 2.3 | 26        |
| 166 | Direct Displacement Synthesis Method for Shape Morphing Skins Using Compliant Mechanisms. , 2010, , .  |     | 5         |
| 167 | An Entropic Method for Sequencing Discrete Design Decisions. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .                              | 2.9 | 10        |
| 168 | Complexity Metrics for Directional Node-Link System Representations: Theory and Applications. , 2010, , .  |     | 22        |
| 169 | A Hierarchical Modeling Scheme With Non Functional Requirements. , 2010, , .   |     | 7         |
| 170 | Experimental Damage Characterization of Hexagonal Honeycombs Subjected to In-Plane Shear Loading. , 2010, , .  |     | 6         |
| 171 | Limitations to Function Structures: A Case Study in Morphing Airfoil Design. , 2010, , .   |     | 8         |
| 172 | Compliant Hexagonal Meso-Structures Having Both High Shear Strength and High Shear Strain. , 2010, , .   |     | 6         |
| 173 | Simulation Studies on the Influence of Obstacle on Rolling Lunar Wheel. , 2010, , .  |     | 3         |
| 174 | Requirement Change Propagation Prediction Approach: Results From an Industry Case Study. , 2010, , .   |     | 9         |
| 175 | Application of Meshless Integral Method to Metal Forming. , 2010, , .  |     | 1         |
| 176 | Meshless Integral Method for Analysis of Elastoplastic Geotechnical Materials. , 2010, , .   |     | 0         |
| 177 | Design of Sinusoidal Auxetic Structures for High Shear Flexure. , 2010, , .  |     | 13        |
| 178 | Design of Chiral Honeycomb Meso-Structures for High Shear Flexure. , 2010, , .   |     | 14        |
| 179 | Mechanical Engineering Design Complexity Metrics: Size, Coupling, and Solvability. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .        | 2.9 | 120       |
| 180 | Case Study Research Using Senior Design Projects: An Example Application. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .                 | 2.9 | 10        |

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|-----|---|-----|-----------|
| 181 | Requirements and Data Content Evaluation of Industry In-House Data Management System. , 2010, , .   |     | 8         |
| 182 | Interface Design and Display Modalities to Improve the Vehicle Inspection Process. , 2010, , .  |     | 3         |
| 183 | Investigation of the Interpretability of Three Function Structure Representations: A User Study. , 2009, , .  |     | 5         |
| 184 | Topological Information Content and Expressiveness of Function Models in Mechanical Design. , 2009, , .   |     | 3         |
| 185 | A Morphological, Combinatory Tool for Design of Low-Gap Automotive Body Panels. , 2009, , .   |     | 0         |
| 186 | Design of Honeycomb Meta-Materials for High Shear Flexure. , 2009, , .  |     | 28        |
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