

Judy M Vance

List of Publications by Year in descending order

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55
papers

1,692
citations

687363

13
h-index

610901

24
g-index

56
all docs

56
docs citations

56
times ranked

1138
citing authors

#	ARTICLE	IF	CITATIONS
1	Industry use of virtual reality in product design and manufacturing: a survey. <i>Virtual Reality</i> , 2017, 21, 1-17.	6.1	514
2	Virtual reality for assembly methods prototyping: a review. <i>Virtual Reality</i> , 2011, 15, 5-20.	6.1	278
3	A Screw Theory Approach for the Conceptual Design of Flexible Joints for Compliant Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2009, 1, .	2.2	91
4	Assessment of VR Technology and its Applications to Engineering Problems. <i>Journal of Computing and Information Science in Engineering</i> , 2001, 1, 72-83.	2.7	84
5	An Industry Case Study: Investigating Early Design Decision Making in Virtual Reality. <i>Journal of Computing and Information Science in Engineering</i> , 2017, 17, .	2.7	65
6	Desktop haptic virtual assembly using physically based modelling. <i>Virtual Reality</i> , 2007, 11, 207-215.	6.1	53
7	Applying virtual reality techniques to the interactive stress analysis of a tractor lift arm. <i>Finite Elements in Analysis and Design</i> , 2000, 35, 141-155.	3.2	51
8	Spatial Mechanism Design in Virtual Reality With Networking. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2002, 124, 435-440.	2.9	48
9	SHARP: A System for Haptic Assembly and Realistic Prototyping. , 2006, , 905.		47
10	Effectiveness of Haptic Sensation for the Evaluation of Virtual Prototypes. <i>Journal of Computing and Information Science in Engineering</i> , 2001, 1, 123-128.	2.7	46
11	Collision Detection and Part Interaction Modeling to Facilitate Immersive Virtual Assembly Methods. <i>Journal of Computing and Information Science in Engineering</i> , 2004, 4, 83-90.	2.7	34
12	Coupling of interactive manufacturing operations simulation and immersive virtual reality. <i>Virtual Reality</i> , 2012, 16, 15-23.	6.1	31
13	Development of a Dual-Handed Haptic Assembly System: SHARP. <i>Journal of Computing and Information Science in Engineering</i> , 2008, 8, .	2.7	28
14	A Desktop Networked Haptic VR Interface for Mechanical Assembly. , 2005, , 173.		27
15	Discrete Event Simulation Implemented in a Virtual Environment. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2003, 125, 428-433.	2.9	25
16	Using VPS (VoxMap Pointshell) as the Basis for Interaction in a Virtual Assembly Environment. , 2003, , .		22
17	VR JuggLua: A framework for VR applications combining Lua, OpenSceneGraph, and VR Juggler. , 2012, , .		19
18	Puzzle assembly training: Real world vs. virtual environment. , 2012, , .		18

#	ARTICLE	IF	CITATIONS
19	Combining MSC/NASTRAN, sensitivity methods, and virtual reality to facilitate interactive design. Finite Elements in Analysis and Design, 1997, 26, 161-169.	3.2	16
20	The Use of the Voxmap Pointshell Method of Collision Detection in Virtual Assembly Methods Planning. , 2001, , .		16
21	Combining Geometric Constraints With Physics Modeling for Virtual Assembly Using SHARP. , 2007, , .		16
22	Development of a Networked Haptic Environment in VR to Facilitate Collaborative Design Using Voxmap Pointshell (VPS) Software. , 2004, , .		15
23	Assessment of haptics-based interaction for assembly tasks in virtual reality. , 2009, , .		14
24	Combining Dynamic Modeling With Geometric Constraint Management to Support Low Clearance Virtual Manual Assembly. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	2.9	11
25	Interacting With a Large Virtual Environment by Combining a Ground-Based Haptic Device and a Mobile Robot Base. , 2013, , .		10
26	An evaluation of asymmetric interfaces for bimanual virtual assembly with haptics. Virtual Reality, 2016, 20, 193-201.	6.1	10
27	Fast Meshless Reanalysis Using Combined Approximations, Preconditioned Conjugate Gradient, and Taylor Series. AIAA Journal, 2006, 44, 1325-1331.	2.6	9
28	Expanding Haptic Workspace for Coupled-Object Manipulation. , 2011, , .		9
29	Disassembly Sequence Evaluation Using Graph Visualization and Immersive Computing Technologies. , 2012, , .		6
30	Synergy Between Normative and Descriptive Design Theory and Methodology. , 2013, , .		6
31	Approximating eigenvectors and eigenvalues across a wide range of design. Finite Elements in Analysis and Design, 1993, 14, 403-414.	3.2	5
32	Image Warping of Three-Dimensional Body Scan Data. , 0, , .		5
33	Interactive Mesh-Free Stress Analysis for Mechanical Design Assembly With Haptics. , 2007, , 1359.		5
34	A Modular Implementation of Wii Remote Head Tracking for Virtual Reality. , 2010, , .		5
35	A Conceptual Framework to Support Natural Interaction for Virtual Assembly Tasks. , 2011, , .		5
36	Disassembly Sequence Evaluation: A User Study Leveraging Immersive Computing Technologies. Journal of Computing and Information Science in Engineering, 2015, 15, .	2.7	5

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37	Haptic Feedback to Guide Interactive Product Design. , 2009, , .		5
38	VEMECS: A virtual reality interface for spherical mechanism design. Journal of Engineering Design, 2001, 12, 245-254.	2.3	4
39	Development of a Virtual Environment for Interactive Interrogation of Computational Mixing Data. Journal of Mechanical Design, Transactions of the ASME, 2007, 129, 361-367.	2.9	4
40	A Mesh Reduction Approach to Parametric Surface Polygonization. , 1995, , .		4
41	BREP Identification During Voxel-Based Collision Detection for Haptic Manual Assembly. , 2011, , .		3
42	Poster: Rapid development of natural user interaction using kinect sensors and VRPN. , 2014, , .		3
43	Interacting With Grasped Objects in Expanded Haptic Workspaces Using the Bubble Technique. Journal of Computing and Information Science in Engineering, 2015, 15, .	2.7	3
44	A Virtual Reality Interface for the Design of Compliant Mechanisms. , 2009, , .		3
45	Interactive Deformation Through Mesh-Free Stress Analysis in Virtual Reality. , 2008, , .		3
46	Mesh Reduction Using an Angle Criterion Approach. Journal of Mechanical Design, Transactions of the ASME, 1996, 118, 300-305.	2.9	2
47	Interactive Visualization of Line Congruences for Spatial Mechanism Design. Journal of Computing and Information Science in Engineering, 2002, 2, 208-215.	2.7	2
48	Comparison of Single-Wall Versus Multi-Wall Immersive Environments to Support a Virtual Shopping Experience. , 2011, , .		2
49	Virtual Hand Representations to Support Natural Interaction in Immersive Environments. , 2013, , .		2
50	Investigating the Use of Large-Scale Immersive Computing Environments in Collaborative Design. , 2014, , .		1
51	Spatial Mechanism Design in Virtual Reality With Networking. , 2001, , .		1
52	Assessment of Pointshell Shrinking and Feature Size on Virtual Manual Assembly. , 2010, , .		1
53	An Immersive Workstation Design Tool Using Three-Dimensional Anthropometric Data. Proceedings of the Human Factors and Ergonomics Society, 2003, 47, 865-869.	0.3	0
54	A Screw Theory Approach for the Type Synthesis of Compliant Mechanisms With Flexures. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
55	Constraint-Based Synthesis of Shape-Morphing Structures in Virtual Reality. , 2010, , .		0