

Tobias Bruckmann

List of Publications by Year in descending order

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47
papers

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51
docs citations

51
times ranked

335
citing authors

#	ARTICLE	IF	CITATIONS
1	A Versatile Tension Distribution Algorithm for n -DOF Parallel Robots Driven by $n+2$ Cables. IEEE Transactions on Robotics, 2015, 31, 1444-1457.	10.3	126
2	Closed-form Force Distribution for Parallel Wire Robots. , 2009, , 25-34.		99
3	A real-time capable force calculation algorithm for redundant tendon-based parallel manipulators. , 2008, , .		73
4	Wire Robots Part I: Kinematics, Analysis & Design. , 0, , .		50
5	Rest-to-Rest Trajectory Planning for Underactuated Cable-Driven Parallel Robots. IEEE Transactions on Robotics, 2019, 35, 1338-1351.	10.3	49
6	Reducing cyclic testing time for components of automotive suspension system utilising the wavelet transform and the Fuzzy C-Means. Mechanical Systems and Signal Processing, 2017, 90, 1-14.	8.0	43
7	The need to generate realistic strain signals at an automotive coil spring for durability simulation leading to fatigue life assessment. Mechanical Systems and Signal Processing, 2017, 94, 432-447.	8.0	38
8	Simulation and optimization of automated masonry construction using cable robots. Advanced Engineering Informatics, 2021, 50, 101388.	8.0	23
9	Analysis of a Real-Time Capable Cable Force Computation Method. Mechanisms and Machine Science, 2015, , 227-238.	0.5	19
10	A new force calculation algorithm for tendon-based parallel manipulators. , 2007, , .		17
11	Development of a Storage Retrieval Machine for High Racks Using a Wire Robot. , 2012, , .		16
12	Robust Internal Force-Based Impedance Control for Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2015, , 131-143.	0.5	16
13	Wire Robots Part II: Dynamics, Control & Application. , 2008, , .		15
14	Continuous workspace analysis for parallel cable-driven Stewart-Gough platforms. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4010025-4010026.	0.2	13
15	Use of Passively Guided Deflection Units and Energy-Storing Elements to Increase the Application Range of Wire Robots. Mechanisms and Machine Science, 2013, , 167-184.	0.5	11
16	An energy-efficient wire-based storage and retrieval system. , 2013, , .		11
17	Improving the Performance of a New Storage and Retrieval Machine Based on a Parallel Manipulator Using FMEA Analysis. IFAC-PapersOnLine, 2015, 48, 1658-1663.	0.9	11
18	Design and simulation based validation of the control architecture of a stacker crane based on an innovative wire-driven robot. Robotics and Computer-Integrated Manufacturing, 2017, 44, 117-128.	9.9	11

#	ARTICLE	IF	CITATIONS
19	Concept Studies of Automated Construction Using Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2018, , 364-375.	0.5	10
20	A reconfigurable, tendon-based haptic interface for research into human-environment interactions. Robotica, 2013, 31, 441-453.	1.9	9
21	Simulation of automated construction using wire robots. , 2016, , .		8
22	Rest-to-Rest Trajectory Planning for Planar Underactuated Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2018, , 207-218.	0.5	7
23	Real-Time Cable Force Calculation beyond the Wrench-Feasible Workspace. Robotics, 2020, 9, 41.	3.5	7
24	Continuous Workspace Analysis, Synthesis and Optimization of Wire Robots. , 2008, , .		6
25	Design Approaches for Wire Robots. , 2009, , .		6
26	A Novel Tensed Mechanism for Simulation of Maneuvers in Wind Tunnels. , 2009, , .		6
27	Development of Emergency Strategies for Cable-Driven Parallel Robots after a Cable Break. Mechanisms and Machine Science, 2019, , 269-280.	0.5	6
28	Application Examples of Wire Robots. , 2013, , 291-310.		5
29	A Design-To-Task Approach for Wire Robots. , 2012, , 83-97.		5
30	Process Analysis of Cable-Driven Parallel Robots for Automated Construction. Intelligent Systems, Control and Automation: Science and Engineering, 2018, , 63-83.	0.5	4
31	Optimization of Trajectories for Cable Robots on Automated Construction Sites. , 2020, , .		4
32	Analysis of Geometrical Force Calculation Algorithms for Cable-Driven Parallel Robots with a Threefold Redundancy. , 2014, , 203-211.		4
33	Simulation and Model-Based Verification of an Emergency Strategy for Cable Failure in Cable Robots. Actuators, 2022, 11, 56.	2.3	4
34	FCM-based Optimisation to Enhance the Morlet Wavelet Ability for Compressing Suspension Strain Data. , 2014, 3, 288-294.		3
35	Simulation of a cable-driven actuation concept for a humanoid robot prototype. , 2014, , .		2
36	Combined Use of Modified Hough Transformation, Random Sample Consensus and Linear Least Square to Extract the Normal Parameterization of a Straight Line: An Application for Cable Driven Parallel Robots. Procedia Technology, 2016, 26, 382-388.	1.1	2

#	ARTICLE	IF	CITATIONS
37	Design and Analysis of a Novel Cable-Driven Haptic Master Device for Planar Grasping. Mechanisms and Machine Science, 2018, , 307-318.	0.5	2
38	An Emergency Strategy for Cable Failure in Reconfigurable Cable Robots. Mechanisms and Machine Science, 2021, , 217-229.	0.5	2
39	Influence of Automated Building Construction Systems on Vocational Education and Training. , 2018, , .		2
40	Improving the Performance of Auxiliary Null Space Tasks via Time Scaling-Based Relaxation of the Primary Task. , 2019, , .		1
41	A Conditional Stop Capable Trajectory Planner for Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2019, , 281-292.	0.5	1
42	Evaluation of alternative drive systems based on driving patterns comparing Germany, China and Malaysia. International Journal of Automotive and Mechanical Engineering, 2017, 14, 3985-3997.	0.9	1
43	Cable-Driven Parallel Robots. , 2022, , 1-14.		1
44	Wavelet-Based Feature Extraction Algorithm for Fatigue Strain Data Associated with the <i>k</i>-Means Clustering Technique. Advanced Materials Research, 0, 891-892, 1717-1722.	0.3	0
45	Application of the Wavelet Transforms for Compressing Lower Suspension Arm Strain Data. Applied Mechanics and Materials, 2014, 663, 78-82.	0.2	0
46	Development of a Dynamic Electronic Speed Controller for Multicopters. , 2019, , .		0
47	Energy Consumption Reduction of a Cable-Driven Storage and Retrieval System. Springer Proceedings in Advanced Robotics, 2019, , 383-391.	1.3	0