

David J Hoelzle

List of Publications by Year in descending order

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papers

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52
times ranked

959
citing authors

#	ARTICLE	IF	CITATIONS
1	Reinforcement Learning Enabled Autonomous Manufacturing Using Transfer Learning and Probabilistic Reward Modeling. , 2023, 7, 508-513.		3
2	Hybrid Control of Flowrate in Microextrusion-Based Direct-Write Additive Manufacturing. , 2022, 6, 97-102.		5
3	A Surgical Robot for Intracorporeal Additive Manufacturing of Tissue Engineering Constructs. IEEE Robotics and Automation Letters, 2022, 7, 7495-7502.	3.3	2
4	Hybrid Control of Flowrate in Microextrusion-Based Direct-Write Additive Manufacturing. , 2021, , .		0
5	Spatial Iterative Learning Control for Multi-material Three-Dimensional Structures. ASME Letters in Dynamic Systems and Control, 2021, 1, .	0.4	5
6	Higher-Order Spatial Iterative Learning Control for Additive Manufacturing. , 2021, , .		3
7	Time-Scale Transformed Iterative Learning Control for a Class of Nonlinear Systems With Uncertain Trial Duration. IEEE Transactions on Control Systems Technology, 2020, 28, 1972-1979.	3.2	9
8	Electrohydrodynamic Jet Printing of 1D Photonic Crystals: Part II—Optical Design and Reflectance Characteristics. Advanced Materials Technologies, 2020, 5, 2000431.	3.0	9
9	Electrohydrodynamic Jet Printing of One-Dimensional Photonic Crystals: Part I—An Empirical Model for Multi-Material Multi-Layer Fabrication. Advanced Materials Technologies, 2020, 5, 2000386.	3.0	6
10	LPV models for jet-printed heightmap control. , 2019, , .		8
11	Robust Monotonically Convergent Spatial Iterative Learning Control: Interval Systems Analysis via Discrete Fourier Transform. IEEE Transactions on Control Systems Technology, 2019, 27, 2470-2483.	3.2	17
12	Coupled Dynamics of Material Delivery and Robotic Manipulator Axes in Endoscopic Additive Manufacturing. , 2019, , .		0
13	Hybrid System Model of Microextrusion-Based Direct-Write Additive Manufacturing. , 2019, , .		2
14	Direct metal laser-sintered stainless steel: comparison of microstructure and hardness between different planes. International Journal of Advanced Manufacturing Technology, 2018, 95, 4031-4037.	1.5	12
15	Application of robust monotonically convergent spatial iterative learning control to microscale additive manufacturing. Mechatronics, 2018, 56, 157-165.	2.0	28
16	Fast prediction of thermal distortion in metal powder bed fusion additive manufacturing: Part 1, a thermal circuit network model. Additive Manufacturing, 2018, 22, 852-868.	1.7	21
17	Fast prediction of thermal distortion in metal powder bed fusion additive manufacturing: Part 2, a quasi-static thermo-mechanical model. Additive Manufacturing, 2018, 22, 869-882.	1.7	27
18	On the feasibility of a temperature state observer for powder bed fusion additive manufacturing. , 2018, , .		5

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19	Experimental investigation of curved electrode actuator dynamics in viscous dielectric media. Applied Physics Letters, 2018, 113, 074102.	1.5	8
20	An electrohydrodynamic jet printer with integrated metrology. Mechatronics, 2018, 56, 268-276.	2.0	16
21	System Identification of a Discrete Repetitive Process Model for Electrohydrodynamic Jet Printing. , 2018, , .		7
22	A multi-objective iterative learning control approach for additive manufacturing applications. Control Engineering Practice, 2017, 64, 74-87.	3.2	23
23	Multiscale Porosity Directs Bone Regeneration in Biphasic Calcium Phosphate Scaffolds. ACS Biomaterials Science and Engineering, 2017, 3, 2768-2778.	2.6	33
24	Experimental measurement of residual stress and distortion in additively manufactured stainless steel components with various dimensions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 689-700.	2.6	60
25	A curved electrode electrostatic actuator designed for large displacement and force in an underwater environment. Journal of Micromechanics and Microengineering, 2017, 27, 095009.	1.5	13
26	Release of Applied Mechanical Loading Stimulates Intercellular Calcium Waves in Drosophila WingADiscs. Biophysical Journal, 2017, 113, 491-501.	0.2	32
27	A Dynamical Model of Drop Spreading in Electrohydrodynamic Jet Printing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	15
28	Method to study particle flow bias at a channel bifurcation in a microfluidic device. Analytical Methods, 2017, 9, 6719-6724.	1.3	1
29	Hybrid Continuous-Discrete Repetitive Process Modeling of Meniscus Dynamics in Electrohydrodynamic Jet Printing. IFAC-PapersOnLine, 2017, 50, 13414-13419.	0.5	2
30	Hybrid modeling and identification of jetting dynamics in electrohydrodynamic jet printing. , 2017, , .		5
31	On-chip three-dimensional tissue histology for microbiopsies. Biomicrofluidics, 2016, 10, .	1.2	3
32	An application of spatial Iterative Learning Control to micro-additive manufacturing. , 2016, , .		10
33	Net shape fabrication of calcium phosphate scaffolds with multiple material domains. Biofabrication, 2016, 8, 015005.	3.7	16
34	On Spatial Iterative Learning Control via 2-D Convolution: Stability Analysis and Computational Efficiency. IEEE Transactions on Control Systems Technology, 2016, 24, 1504-1512.	3.2	58
35	A Model of Liquid-Drop Spreading for Electrohydrodynamic Jet Printing. , 2015, , .		3
36	A large displacement, high frequency, underwater microelectromechanical systems actuator. Journal of Applied Physics, 2015, 117, 014503.	1.1	7

#	ARTICLE	IF	CITATIONS
37	A new spatial Iterative Learning Control approach for improved micro-Additive Manufacturing. , 2014, , .		14
38	Bumpless Transfer Filter for Exogenous Feedforward Signals. IEEE Transactions on Control Systems Technology, 2014, 22, 1581-1588.	3.2	19
39	A Microfluidic Technique to Probe Cell Deformability. Journal of Visualized Experiments, 2014, , e51474.	0.2	15
40	Spatial ILC for Multi-Objective Systems. , 2014, , .		0
41	Flexible iterative learning control using a library based interpolation scheme. , 2012, , .		3
42	Cross-coupled iterative learning control of systems with dissimilar dynamics: design and implementation. International Journal of Control, 2011, 84, 1223-1233.	1.2	40
43	Basis Task Approach to Iterative Learning Control With Applications to Micro-Robotic Deposition. IEEE Transactions on Control Systems Technology, 2011, 19, 1138-1148.	3.2	94
44	Bumpless transfer for a flexible adaptation of Iterative Learning Control. , 2011, , .		7
45	Design and Manufacture of Combinatorial Calcium Phosphate Bone Scaffolds. Journal of Biomechanical Engineering, 2011, 133, 101001.	0.6	15
46	The effect of BMP-2 on micro- and macroscale osteointegration of biphasic calcium phosphate scaffolds with multiscale porosity. Acta Biomaterialia, 2010, 6, 3283-3291.	4.1	103
47	Iterative Learning Control using a basis signal library. , 2009, , .		5
48	Cross Coupled Iterative Learning Control of Dissimilar Dynamical Systems. , 2009, , .		2
49	Micro-robotic deposition guidelines by a design of experiments approach to maximize fabrication reliability for the bone scaffold application. Acta Biomaterialia, 2008, 4, 897-912.	4.1	32
50	Iterative Learning Control for robotic deposition using machine vision. , 2008, , .		19
51	Microfluidic device design, fabrication, and testing protocols. Protocol Exchange, 0, , .	0.3	31