Binil Starly

List of Publications by Year
in descending order

59 papers	3,321 citations	331642 21 h-index	189881 50 g-index
59 all docs	59 docs citations	59 times ranked	4331 citing authors

#	Article	IF	Citations
1	Mechanical evaluation of porous titanium (Ti6Al4V) structures with electron beam melting (EBM). Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 249-259.	3.1	666
2	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	7.1	291
3	A design for the additive manufacture of functionally graded porous structures with tailored mechanical properties for biomedical applications. Journal of Manufacturing Processes, 2011, 13, 160-170.	5.9	290
4	Computerâ€‘aided tissue engineering: overview, scope and challenges. Biotechnology and Applied Biochemistry, 2004, 39, 29-47.	3.1	288
5	3D-Bioprinting of Polylactic Acid (PLA) Nanofiberâ€"Alginate Hydrogel Bioink Containing Human Adipose-Derived Stem Cells. ACS Biomaterials Science and Engineering, 2016, 2, 1732-1742.	5.2	232
6	Sensor Data and Information Fusion to Construct Digital-twins Virtual Machine Tools for Cyber-physical Manufacturing. Procedia Manufacturing, 2017, 10, 1031-1042.	1.9	216
7	Computerâ€‘aided tissue engineering: application to biomimetic modelling and design of tissue scaffolds. Biotechnology and Applied Biochemistry, 2004, 39, 49-58.	3.1	206
8	A Case Study for Blockchain in Manufacturing: â€œFabRecâ€‹ A Prototype for Peer-to-Peer Network of Manufacturing Nodes. Procedia Manufacturing, 2018, 26, 1180-1192.	1.9	106
9	Long-term cultivation of HepG2 liver cells encapsulated in alginate hydrogels: A study of cell viability, morphology and drug metabolism. Toxicology in Vitro, 2010, 24, 1314-1323.	2.4	93
10	Manufacturing Road Map for Tissue Engineering and Regenerative Medicine Technologies. Stem Cells Translational Medicine, 2015, 4, 130-135.	3.3	76
11	Decentralized cloud manufacturing-as-a-service (CMaaS) platform architecture with configurable digital assets. Journal of Manufacturing Systems, 2020, 56, 157-174.	13.9	75
12	Alginate based 3D hydrogels as an in vitro co-culture model platform for the toxicity screening of new chemical entities. Toxicology and Applied Pharmacology, 2011, 256, 62-72.	2.8	74
13	A flexible data schema and system architecture for the virtualization of manufacturing machines (VMM). Journal of Manufacturing Systems, 2017, 45, 236-247.	13.9	68
14	Controlled release of metronidazole from composite poly-Îµ-caprolactone/alginate (PCL/alginate) rings for dental implants. Dental Materials, 2013, 29, 656-665.	3.5	45
15	Large scale industrialized cell expansion: producing the critical raw material for biofabrication processes. Biofabrication, 2015, 7, 044103.	7.1	45
16	Recurrent neural networks with long term temporal dependencies in machine tool wear diagnosis and prognosis. SN Applied Sciences, 2021, 3, 1.	2.9	45
17	Largeâ€"scale digitization of herbarium specimens: Development and usage of an automated, highâ€"throughput conveyor system. Taxon, 2018, 67, 165-178.	0.7	42
18	Particle learning in online tool wear diagnosis and prognosis. Journal of Manufacturing Processes, 2017, 28, 457-463.	5.9	37

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19	Electrical Cell-Substrate Impedance Spectroscopy Can Monitor Age-Grouped Human Adipose Stem Cell Variability During Osteogenic Differentiation. Stem Cells Translational Medicine, 2017, 6, 502-511.	3.3	34
20	Phylogeny of the *Inula* group (Asteraceae: Inuleae): Evidence from nuclear and plastid genomes and a recircumscription of *Pentanema*. Taxon, 2018, 67, 149-164.	0.7	33
21	Experimental investigation on the operating variables of a near-field electrospinning process via response surface methodology. Journal of Manufacturing Processes, 2011, 13, 104-112.	5.9	28
22	Enabling Sensor Technologies for the Quantitative Evaluation of Engineered Tissue. Annals of Biomedical Engineering, 2008, 36, 30-40.	2.5	27
23	â€œFabNERâ€ information extraction from manufacturing process science domain literature using named entity recognition. Journal of Intelligent Manufacturing, 2022, 33, 2393-2407.	7.3	20
24	3D Bioprinting Techniques. , 2015, , 57-77.		19
25	Real time in vitro measurement of oxygen uptake rates for HEPG2 liver cells encapsulated in alginate matrices. Microfluidics and Nanofluidics, 2009, 6, 373-381.	2.2	18
26	â€œFabSearchâ€ A 3D CAD Model-Based Search Engine for Sourcing Manufacturing Services. Journal of Computing and Information Science in Engineering, 2019, 19, .	2.7	18
27	MVCNN++: Computer-Aided Design Model Shape Classification and Retrieval Using Multi-View Convolutional Neural Networks. Journal of Computing and Information Science in Engineering, 2021, 21, .	2.7	18
28	A Lindenmayer system-based approach for the design of nutrient delivery networks in tissue constructs. Biofabrication, 2009, 1, 045004.	7.1	16
29	Knowledge graph construction for product designs from large CAD model repositories. Advanced Engineering Informatics, 2022, 53, 101680.	8.0	16
30	Internal Scaffold Architecture Designs using Lindenmayer Systems. Computer-Aided Design and Applications, 2007, 4, 395-403.	0.6	15
31	Label free process monitoring of 3D bioprinted engineered constructs via dielectric impedance spectroscopy. Biofabrication, 2018, 10, 035012.	7.1	15
32	Impact of Scheduling Policies on the Performance of an Additive Manufacturing Production System. Procedia Manufacturing, 2019, 39, 447-456.	1.9	13
33	Streaming Machine Generated Data to Enable a Third-Party Ecosystem of Digital Manufacturing Apps. Procedia Manufacturing, 2017, 10, 1020-1030.	1.9	11
34	A genetic algorithm for order acceptance and scheduling in additive manufacturing. International Journal of Production Research, 2022, 60, 6373-6390.	7.5	11
35	Reverse auction mechanism design for the acquisition of prototyping services in a manufacturing-as-a-service marketplace. Journal of Manufacturing Systems, 2018, 48, 134-143.	13.9	10
36	Integrating A Dynamic Simulator and Advanced Process Control using the OPC-UA Standard. Procedia Manufacturing, 2019, 34, 813-819.	1.9	9

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37	Application of computer-assisted design in craniofacial reconstructive surgery using a commercial image guidance system. Journal of Neurosurgery: Pediatrics, 2006, 104, 64-67.	1.3	8
38	Computer Aided Tissue Engineering for the Design and Evaluation of Lumbar-Spine Arthroplasty. Computer-Aided Design and Applications, 2006, 3, 771-778.	0.6	8
39	Non-destructive quality monitoring of 3D printed tissue scaffolds via dielectric impedance spectroscopy and supervised machine learning. Procedia Manufacturing, 2021, 53, 636-643.	1.9	8
40	Computer Aided Biomodeling and Analysis of Patient Specific Porous Titanium Mandibular Implants. Journal of Medical Devices, Transactions of the ASME, 2009, 3, .	0.7	7
41	Hybrid Blockchain Architecture for Cloud Manufacturing-as-a-service (CMaaS) Platforms with Improved Data Storage and Transaction Efficiency. Procedia Manufacturing, 2021, 53, 594-605.	1.9	7
42	A Computer-aided Multi-scale Modeling and Direct Fabrication of Bone Structure. Computer-Aided Design and Applications, 2005, 2, 627-635.	0.6	6
43	Biofabrication of Multimaterial Three-Dimensional Constructs Embedded With Patterned Alginate Strands Encapsulating PC12 Neural Cell Lines. Journal of Nanotechnology in Engineering and Medicine, 2015, 6, .	0.8	6
44	Human Mesenchymal Stem Cells Expansion on Three-Dimensional (3D) Printed Poly-Styrene (PS) Scaffolds in a Perfusion Bioreactor. Procedia CIRP, 2017, 65, 115-120.	1.9	6
45	Network-based pricing for 3D printing services in two-sided manufacturing-as-a-service marketplace. Rapid Prototyping Journal, 2020, 26, 82-88.	3.2	6
46	Alginate Microspheroid Encapsulation and Delivery of MG-63 Cells Into Polycaprolactone Scaffolds: A New Biofabrication Approach for Tissue Engineering Constructs. Journal of Nanotechnology in Engineering and Medicine, 2015, 6, .	0.8	5
47	Provisioned Data Distribution for Intelligent Manufacturing via Fog Computing. Procedia Manufacturing, 2019, 34, 893-902.	1.9	5
48	Witness Box Protocol: Automatic machine identification and authentication in industry 4.0. Computers in Industry, 2020, 123, 103340.	9.9	5
49	Fabrication of Micropatterned Hydrogels Using Maskless Photopolymerization for Tissue Engineering Applications. , 2008, , .		4
50	Development of a Pilot Manufacturing Cyberinfrastructure With an Information Rich Mechanical CAD 3D Model Repository. , 2019, , .		4
51	Investigating Dielectric Impedance Spectroscopy As a Non-Destructive Quality Assessment Tool for 3D Cellular Constructs. , 2017, , .		3
52	Dynamic matching with deep reinforcement learning for a two-sided Manufacturing-as-a-Service (MaaS) marketplace. Manufacturing Letters, 2021, 29, 11-14.	2.2	3
53	Dependance of Lindenmayer System (L-System) Parameters on Flow Characteristics in Engineered Biomaterials. , 2009, , .		2
54	Fabrication of Lindenmayer System-Based Designed Engineered Scaffolds Using UV-Maskless Photolithography. MRS Advances, 2016, 1, 749-754.	0.9	1

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55	Automating the Search and Discovery of Manufacturing Service Providers to Enable a Digital Supply Chain Network. Smart and Sustainable Manufacturing Systems, 2020, 4, 20200061.	0.7	1
56	Fabrication of Low Cost 1D CdSe Nanowires using Near-field Electrospinning. Materials Research Society Symposia Proceedings, 2011, 1302, 37801.	0.1	0
57	Modeling Human Mesenchymal Stem Cell Expansion in Vertical Wheel Bioreactors Using Lactate Production Rate in Regenerative Medicine Biomanufacturing. , 2016, , .		0
58	A Simulator Testbed for MT-Connect Based Machines in a Scalable and Federated Multi-Enterprise Environment. , 2019, , .		0
59	Computer-Aided Process Planning for the Layered Fabrication of Porous Scaffold Matrices. Biological and Medical Physics Series, 2010, , 39-55.	0.4	0