

Zhuming Bi

List of Publications by Year in descending order

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144
papers

5,428
citations

109137

35
h-index

95083

68
g-index

163
all docs

163
docs citations

163
times ranked

3949
citing authors

#	ARTICLE	IF	CITATIONS
1	Internet of things (IoT) and big data analytics (BDA) for digital manufacturing (DM). International Journal of Production Research, 2023, 61, 4004-4021.	4.9	37
2	Segmentation of prostate ultrasound images: the state of the art and the future directions of segmentation algorithms. Artificial Intelligence Review, 2023, 56, 615-651.	9.7	4
3	System framework of adopting additive manufacturing in mass production line. Enterprise Information Systems, 2022, 16, 606-629.	3.3	8
4	Impact of ultrasonic vibration on microstructure and mechanical properties of diamond in laser brazing with Ni-Cr filler alloy. Ceramics International, 2022, 48, 4096-4104.	2.3	12
5	User-Oriented Selections of Validators for Trust of Internet-of-Thing Services. IEEE Transactions on Industrial Informatics, 2022, 18, 4859-4867.	7.2	5
6	New digital triad (DT-II) concept for lifecycle information integration of sustainable manufacturing systems. Journal of Industrial Information Integration, 2022, 26, 100316.	4.3	10
7	Blockchain technologies for interoperation of business processes in smart supply chains. Journal of Industrial Information Integration, 2022, 26, 100326.	4.3	20
8	Deep Learning-Based Complete Coverage Path Planning With Re-Joint and Obstacle Fusion Paradigm. Frontiers in Robotics and AI, 2022, 9, 843816.	2.0	11
9	Microstructure and properties at bonds of diamond grains and Ni Cr filler alloy by fiber laser brazing. Diamond and Related Materials, 2022, 125, 108969.	1.8	6
10	Development of a Real-Time Wearable Fall Detection System in the Context of Internet of Things. IEEE Internet of Things Journal, 2022, 9, 21999-22007.	5.5	21
11	Collaborative Multiple Rank Regression for Temperature Prediction of Blast Furnace. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	7
12	Framework for Performance Assessment of Heterogeneous Robotic Systems. IEEE Systems Journal, 2021, 15, 1191-1201.	2.9	10
13	Automatic robotic recharging systems – development and challenges. Industrial Robot, 2021, 48, 95-109.	1.2	6
14	Augmenting cryptocurrency in smart supply chain. Journal of Industrial Information Integration, 2021, 21, 100188.	4.3	5
15	State of the art of friction modelling at interfaces subjected to elastohydrodynamic lubrication (EHL). Friction, 2021, 9, 207-227.	3.4	15
16	Low-Rank Joint Embedding and Its Application for Robust Process Monitoring. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	2.4	14
17	Computer-Aided Design. , 2021, , 35-116.		0
18	Digital Manufacturing (DM). , 2021, , 389-424.		1

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19	Computer-Aided Engineering (CAE). , 2021, , 117-222.		0
20	Human Civilization, Products, and Manufacturing. , 2021, , 1-33.		0
21	Practical Guide to Digital Manufacturing. , 2021, , .		3
22	Fatigue Analysis of Actuators with Teflon Impregnated Coatingâ€”Challenges in Numerical Simulation. Actuators, 2021, 10, 82.	1.2	0
23	Generic Design Methodology for Smart Manufacturing Systems from a Practical Perspective. Part IIâ€”Systematic Designs of Smart Manufacturing Systems. Machines, 2021, 9, 208.	1.2	10
24	Generic Design Methodology for Smart Manufacturing Systems from a Practical Perspective, Part Iâ€”Digital Triad Concept and Its Application as a System Reference Model. Machines, 2021, 9, 207.	1.2	8
25	Computer Integrated Manufacturing (CIM). , 2021, , 321-388.		0
26	Testing Platform of Chains and Sprockets for Conveyer System Designs. Procedia Manufacturing, 2021, 55, 96-101.	1.9	0
27	Blockchain-based business process management (BPM) framework for service composition in industry 4.0. Journal of Intelligent Manufacturing, 2020, 31, 1737-1748.	4.4	145
28	Specification Patterns of Service-Based Applications Using Blockchain Technology. IEEE Transactions on Computational Social Systems, 2020, 7, 886-896.	3.2	27
29	Service selection and workflow composition in modern business processes. Journal of Industrial Information Integration, 2020, 17, 100126.	4.3	17
30	State-of-the-Art control strategies for robotic PiH assembly. Robotics and Computer-Integrated Manufacturing, 2020, 65, 101894.	6.1	49
31	Blockchain Technology for Applications in Internet of Thingsâ€”Mapping From System Design Perspective. IEEE Internet of Things Journal, 2019, 6, 8155-8168.	5.5	112
32	New Blockchain-Based Architecture for Service Interoperations in Internet of Things. IEEE Transactions on Computational Social Systems, 2019, 6, 739-748.	3.2	80
33	Blockchain and Internet of Things for Modern Business Process in Digital Economyâ€”the State of the Art. IEEE Transactions on Computational Social Systems, 2019, 6, 1420-1432.	3.2	116
34	A short-term energy prediction system based on edge computing for smart city. Future Generation Computer Systems, 2019, 101, 444-457.	4.9	54
35	Simulation-Based Design and Optimization of Accelerometers Subject to High-Temperature and High-Impact Loads. Sensors, 2019, 19, 3759.	2.1	3
36	Comprehensive Study on the Impact of Sternotomy Wires on UWB WBAN Channel Characteristics on the Human Chest Area. IEEE Access, 2019, 7, 74670-74682.	2.6	16

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37	A Max-Min Ant System Approach to Autonomous Navigation. , 2019, , .		1
38	Friction predication on pin-to-plate interface of PTFE material and steel. Friction, 2019, 7, 268-281.	3.4	12
39	Managing QoS of Internet-of-Things Services Using Blockchain. IEEE Transactions on Computational Social Systems, 2019, 6, 1357-1368.	3.2	55
40	New CAD/CAM course framework in digital manufacturing. Computer Applications in Engineering Education, 2019, 27, 128-144.	2.2	13
41	rmSWSpec: Real-Time Monitoring of Service Workflow Specification Language for Specification Patterns. IEEE Transactions on Industrial Informatics, 2019, 15, 4021-4032.	7.2	12
42	Overview of Testing Platform for Development of Integrated Robotic Systems at NIST. , 2019, , .		0
43	Design of Human Health Monitoring System Based on NB-IoT. , 2019, , .		6
44	Modelling and verification of fatigue damage for compliant mechanisms. Robotica, 2019, 37, 1-17.	1.3	20
45	Tribological behavior of cBN-WC-10Co composites for dry reciprocating sliding wear. Ceramics International, 2019, 45, 6447-6458.	2.3	30
46	Experiments on formation mechanism of root humping in high-power laser autogenous welding of thick plates with stainless steels. Optics and Laser Technology, 2019, 111, 11-19.	2.2	16
47	The Extension of Semantic Formalization of Service Workflow Specification Language. IEEE Transactions on Industrial Informatics, 2019, 15, 741-754.	7.2	20
48	Modeling and Quantification of Impact of Psychological Factors on Rehabilitation of Stroke Patients. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 683-692.	3.9	6
49	Modeling and prediction of fatigue life of robotic components in intelligent manufacturing. Journal of Intelligent Manufacturing, 2019, 30, 2575-2585.	4.4	10
50	Real-time force monitoring of smart grippers for Internet of Things (IoT) applications. Journal of Industrial Information Integration, 2018, 11, 19-28.	4.3	38
51	Wear mechanism of single cBN-WC-10Co fiber cutter in machining of Ti-6Al-4V alloy. Journal of Materials Processing Technology, 2018, 259, 45-57.	3.1	33
52	Extension of specification language for soundness and completeness of service workflow. Enterprise Information Systems, 2018, 12, 638-657.	3.3	19
53	Simulation and experiment of cutting characteristics for single cBN-WC-10Co fiber. Precision Engineering, 2018, 52, 170-182.	1.8	27
54	Instrumentation and self-repairing control for resilient multi-rotor aircrafts. Industrial Robot, 2018, 45, 647-656.	1.2	8

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55	Automation of Electrical Cable Harnesses Testing. Robotics, 2018, 7, 1.	2.1	36
56	Overview of Finite Element Analysis. , 2018, , 1-29.		18
57	Automated testing of electrical cable harnesses. , 2018, , .		2
58	Instrumentation of robotic grippers for dynamic control of robotic systems. , 2018, , .		1
59	Mechanisms for Improvement of Weld Appearance in Autogenous Fiber Laser Welding of Thick Stainless Steels. Metals, 2018, 8, 625.	1.0	9
60	A new approach for image databases design. Information Technology and Management, 2017, 18, 97-105.	1.4	6
61	An adaptive genetic algorithm for demand-driven and resource-constrained project scheduling in aircraft assembly. Information Technology and Management, 2017, 18, 41-53.	1.4	16
62	An industrial information integration approach to in-orbit spacecraft. Enterprise Information Systems, 2017, 11, 86-104.	3.3	8
63	Expert-guided evolutionary algorithm for layout design of complex space stations. Enterprise Information Systems, 2017, 11, 1078-1093.	3.3	6
64	IoT-based system for communication and coordination of football robot team. Internet Research, 2017, 27, 162-181.	2.7	33
65	Embracing Internet of Things (IoT) and big data for industrial informatics. Enterprise Information Systems, 2017, 11, 949-951.	3.3	25
66	Grinding characteristics of cBN-WC-10Co composites. Ceramics International, 2017, 43, 16539-16547.	2.3	46
67	Use of the manufacturing system design decomposition for comparative analysis and effective design of production systems. International Journal of Production Research, 2017, 55, 870-890.	4.9	48
68	Modelling of human-machine interaction in equipment design of manufacturing cells. Enterprise Information Systems, 2017, 11, 969-987.	3.3	14
69	Research of home environment surveillance system based on wireless sensor network. , 2017, , .		5
70	Micromanipulation Tools. Microsystems and Nanosystems, 2017, , 547-561.	0.1	1
71	Analysis of Human-Machine Cooperative Robot and haptic interaction for stroke rehabilitation. , 2017, , .		0
72	Extension of Manufacturing System Design Decomposition to Implement Manufacturing Systems That are Sustainable. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	35

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73	Fatigue life modeling of linear actuators in robotics and automation. , 2016, , .		2
74	Finite element analysis for diagnosis of fatigue failure of composite materials in product development. International Journal of Advanced Manufacturing Technology, 2016, 87, 2245-2257.	1.5	9
75	Integrating everyday examples in mechanical engineering courses for teaching enhancement. International Journal of Mechanical Engineering Education, 2016, 44, 16-28.	0.6	7
76	Manufacturing System Design Meets Big Data Analytics for Continuous Improvement. Procedia CIRP, 2016, 50, 647-652.	1.0	25
77	Incorporating design improvement with effective evaluation using the Manufacturing System Design Decomposition (MSDD). Journal of Industrial Information Integration, 2016, 2, 65-74.	4.3	18
78	A visualization platform for internet of things in manufacturing applications. Internet Research, 2016, 26, 377-401.	2.7	42
79	Cloud computing in human resource management (HRM) system for small and medium enterprises (SMEs). International Journal of Advanced Manufacturing Technology, 2016, 84, 485-496.	1.5	37
80	A new method to identify collaborative partners in social service provider networks. Information Systems Frontiers, 2016, 18, 565-578.	4.1	21
81	The wireless sensor network of the family environment monitoring system research. , 2016, , .		1
82	Recent Development of Rehabilitation Robots. Advances in Mechanical Engineering, 2015, 7, 563062.	0.8	49
83	An emerging technology “wearable wireless sensor networks with applications in human health condition monitoring. Journal of Management Analytics, 2015, 2, 121-137.	1.6	68
84	An integrated systems approach to plateau ecosystem management—a scientific application in Qinghai and Tibet plateau. Information Systems Frontiers, 2015, 17, 337-350.	4.1	10
85	Support vector machine and ROC curves for modeling of aircraft fuel consumption. Journal of Management Analytics, 2015, 2, 22-34.	1.6	23
86	Risk assessment model based on multi-agent systems for complex product design. Information Systems Frontiers, 2015, 17, 363-385.	4.1	24
87	A new methodology to support group decision-making for IoT-based emergency response systems. Information Systems Frontiers, 2014, 16, 953-977.	4.1	57
88	Big data analytics with applications. Journal of Management Analytics, 2014, 1, 249-265.	1.6	119
89	A supportive architecture for CFD-based design optimisation. Enterprise Information Systems, 2014, 8, 246-278.	3.3	8
90	A Knowledge Engineering Framework for Identifying Key Impact Factors from Safety-Related Accident Cases. Systems Research and Behavioral Science, 2014, 31, 383-397.	0.9	15

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91	An Analogical Induction Approach to Technology Standardization and Technology Development. <i>Systems Research and Behavioral Science</i> , 2014, 31, 366-382.	0.9	14
92	Feature weighted naïve Bayes algorithm for information retrieval of enterprise systems. <i>Enterprise Information Systems</i> , 2014, 8, 107-120.	3.3	6
93	Reconfiguring machines to achieve system adaptability and sustainability: A practical case study. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2014, 228, 1676-1688.	1.5	21
94	Extended Interference Matrices for Exploded View of Assembly Planning. <i>IEEE Transactions on Automation Science and Engineering</i> , 2014, 11, 279-286.	3.4	55
95	Data Cleaning for RFID and WSN Integration. <i>IEEE Transactions on Industrial Informatics</i> , 2014, 10, 408-418.	7.2	167
96	Modeling and optimization of two-stage procurement in dual-channel supply chain. <i>Information Technology and Management</i> , 2014, 15, 109.	1.4	5
97	Kinetostatic modeling of Exechon parallel kinematic machine for stiffness analysis. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 71, 325-335.	1.5	41
98	Relationship-specific investment, value creation, and value appropriation in cooperative innovation. <i>Information Technology and Management</i> , 2014, 15, 119.	1.4	11
99	Internet of Things for Enterprise Systems of Modern Manufacturing. <i>IEEE Transactions on Industrial Informatics</i> , 2014, 10, 1537-1546.	7.2	529
100	IoT and Cloud Computing in Automation of Assembly Modeling Systems. <i>IEEE Transactions on Industrial Informatics</i> , 2014, 10, 1426-1434.	7.2	207
101	A semantics-based method for clustering of Chinese web search results. <i>Enterprise Information Systems</i> , 2014, 8, 147-165.	3.3	7
102	Determination of Weights for Multiobjective Decision Making or Machine Learning. <i>IEEE Systems Journal</i> , 2014, 8, 63-72.	2.9	16
103	Object-Oriented Templates for Automated Assembly Planning of Complex Products. <i>IEEE Transactions on Automation Science and Engineering</i> , 2014, 11, 492-503.	3.4	93
104	Sensing and responding to the changes of geometric surfaces in flexible manufacturing and assembly. <i>Enterprise Information Systems</i> , 2014, 8, 225-245.	3.3	37
105	Enterprise Information Systems Architecture—Analysis and Evaluation. <i>IEEE Transactions on Industrial Informatics</i> , 2013, 9, 2147-2154.	7.2	93
106	A Rough Programming Model Based on the Greatest Compatible Classes and Synthesis Effect. <i>Systems Research and Behavioral Science</i> , 2013, 30, 229-243.	0.9	13
107	Operations Research (OR) in Service Industries: A Comprehensive Review. <i>Systems Research and Behavioral Science</i> , 2013, 30, 300-353.	0.9	83
108	A Novel Human—Machine Collaborative Interface for Aero-Engine Pipe Routing. <i>IEEE Transactions on Industrial Informatics</i> , 2013, 9, 2187-2199.	7.2	31

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109	An integrated environment for visualization of distributed wireless sensor networks. , 2013, , .		2
110	Developing a rapid response production system for aircraft manufacturing. International Journal of Production Economics, 2013, 146, 37-47.	5.1	13
111	An integrated cost-based approach for real estate appraisals. Information Technology and Management, 2013, 15, 131.	1.4	8
112	Formulation and Validation of Multidisciplinary Design Problem on Wear and Fatigue Life of Lead Screw Actuators. Mathematical Problems in Engineering, 2013, 2013, 1-10.	0.6	7
113	Multidisciplinary Design Optimization in Engineering. Mathematical Problems in Engineering, 2013, 2013, 1-2.	0.6	4
114	An optimisation method for complex product design. Enterprise Information Systems, 2013, 7, 470-489.	3.3	27
115	Applying Electromagnetic Field Theory to Study the Synergistic Relationships Between Technology Standardization and Technology Development. Systems Research and Behavioral Science, 2013, 30, 272-286.	0.9	14
116	Design of a spherical parallel kinematic machine for ankle rehabilitation. Advanced Robotics, 2013, 27, 121-132.	1.1	26
117	An application of enterprise systems in quality management of products. Information Technology and Management, 2012, 13, 389-402.	1.4	25
118	AutoAssem: An Automated Assembly Planning System for Complex Products. IEEE Transactions on Industrial Informatics, 2012, 8, 669-678.	7.2	185
119	Optimization of machining processes from the perspective of energy consumption: A case study. Journal of Manufacturing Systems, 2012, 31, 420-428.	7.6	117
120	Development and Control of a 5-Axis Reconfigurable Machine Tool. Journal of Robotics, 2011, 2011, 1-9.	0.6	10
121	Revisiting System Paradigms from the Viewpoint of Manufacturing Sustainability. Sustainability, 2011, 3, 1323-1340.	1.6	114
122	Design and simulation of dust extraction for composite drilling. International Journal of Advanced Manufacturing Technology, 2011, 54, 629-638.	1.5	3
123	Kinematic modeling of Exechon parallel kinematic machine. Robotics and Computer-Integrated Manufacturing, 2011, 27, 186-193.	6.1	163
124	Motion Purity of Robotic Mechanisms with Desired and Undesired Motions. Advanced Robotics, 2011, 25, 1539-1556.	1.1	3
125	The general architecture of adaptive robotic systems for manufacturing applications. Robotics and Computer-Integrated Manufacturing, 2010, 26, 461-470.	6.1	46
126	Advances in 3D data acquisition and processing for industrial applications. Robotics and Computer-Integrated Manufacturing, 2010, 26, 403-413.	6.1	165

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127	Dynamic control model of a cobot with three omni-wheels. Robotics and Computer-Integrated Manufacturing, 2010, 26, 558-563.	6.1	21
128	Computer integrated reconfigurable experimental platform for ergonomic study of vehicle body design. International Journal of Computer Integrated Manufacturing, 2010, 23, 968-978.	2.9	17
129	Joint workspace of parallel kinematic machines. Robotics and Computer-Integrated Manufacturing, 2009, 25, 57-63.	6.1	26
130	Design and kinetostatic analysis of a new parallel manipulator. Robotics and Computer-Integrated Manufacturing, 2009, 25, 782-791.	6.1	67
131	Optimal design of reconfigurable parallel machining systems. Robotics and Computer-Integrated Manufacturing, 2009, 25, 951-961.	6.1	56
132	Improved control and simulation models of a tricycle collaborative robot. Journal of Intelligent Manufacturing, 2008, 19, 715-722.	4.4	17
133	Reconfigurable manufacturing systems: the state of the art. International Journal of Production Research, 2008, 46, 967-992.	4.9	344
134	Kinematic, Dynamic Modeling and Remote Control of a Robotic Machine. , 2007, , .		0
135	Theoretical Design and Control Analysis of Reconfigurable Parallel Kinematic Machine Tools. , 2007, , .		0
136	A Framework for CAD- and Sensor-Based Robotic Coating Automation. IEEE Transactions on Industrial Informatics, 2007, 3, 84-91.	7.2	44
137	Automated generation of the Dâ€H parameters for configuration design of modular manipulators. Robotics and Computer-Integrated Manufacturing, 2007, 23, 553-562.	6.1	46
138	Kinematic and dynamic models of a tripod system with a passive leg. IEEE/ASME Transactions on Mechatronics, 2006, 11, 108-111.	3.7	19
139	Automated modeling of modular robotic configurations. Robotics and Autonomous Systems, 2006, 54, 1015-1025.	3.0	30
140	Analysis and Synthesis of Reconfigurable Robotic Systems. Concurrent Engineering Research and Applications, 2004, 12, 145-153.	2.0	21
141	Flexible fixture design and automation: Review, issues and future directions. International Journal of Production Research, 2001, 39, 2867-2894.	4.9	208
142	Modularity Technology in Manufacturing: Taxonomy and Issues. International Journal of Advanced Manufacturing Technology, 2001, 18, 381-390.	1.5	91
143	A generic Petri net model for flexible manufacturing systems and its use for FMS control software testing. International Journal of Production Research, 2000, 38, 1109-1131.	4.9	21
144	Function Approximation through an Efficient Neural Networks Method. , 0, , .		2