

# Lei Ren

## List of Publications by Year in descending order

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98  
papers

4,814  
citations

147566

31  
h-index

98622

67  
g-index

100  
all docs

100  
docs citations

100  
times ranked

3938  
citing authors

#	ARTICLE	IF	CITATIONS
1	MCTAN: A Novel Multichannel Temporal Attention-Based Network for Industrial Health Indicator Prediction. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 6456-6467.	7.2	23
2	Parallel Scheduling of Large-Scale Tasks for Industrial Cloud-Edge Collaboration. IEEE Internet of Things Journal, 2023, 10, 3231-3242.	5.5	9
3	Custom Grasping: A Region-Based Robotic Grasping Detection Method in Industrial Cyber-Physical Systems. IEEE Transactions on Automation Science and Engineering, 2023, 20, 88-100.	3.4	6
4	A Binocular Vision Application in IoT: Realtime Trustworthy Road Condition Detection System in Passable Area. IEEE Transactions on Industrial Informatics, 2023, 19, 973-983.	7.2	13
5	QTT-DLSTM: A Cloud-Edge-Aided Distributed LSTM for Cyber-Physical-Social Big Data. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7286-7298.	7.2	20
6	An ABGE-aided manufacturing knowledge graph construction approach for heterogeneous IIoT data integration. International Journal of Production Research, 2023, 61, 4102-4116.	4.9	12
7	Robotic Disassembly Sequence Planning With Backup Actions. IEEE Transactions on Automation Science and Engineering, 2022, 19, 2095-2107.	3.4	8
8	DIMA: Distributed cooperative microservice caching for internet of things in edge computing by deep reinforcement learning. World Wide Web, 2022, 25, 1769-1792.	2.7	31
9	Flexible strain sensor with ridge-like microstructures for wearable applications. Polymers for Advanced Technologies, 2022, 33, 96-103.	1.6	10
10	3D Printing in the Context of Cloud Manufacturing. Robotics and Computer-Integrated Manufacturing, 2022, 74, 102256.	6.1	18
11	A Data-Driven Self-Supervised LSTM-DeepFM Model for Industrial Soft Sensor. IEEE Transactions on Industrial Informatics, 2022, 18, 5859-5869.	7.2	39
12	Alterations in plantar vessel blood flow in patients with mild diabetic peripheral neuropathy. BMJ Open Diabetes Research and Care, 2022, 10, e002492.	1.2	2
13	A Multi-Agent Reinforcement Learning Method With Route Recorders for Vehicle Routing in Supply Chain Management. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 16410-16420.	4.7	19
14	High Specific Surface Area Pd/Pt Electrode-Based Ionic Polymer-Metal Composite for High-Performance Biomimetic Actuation. ACS Sustainable Chemistry and Engineering, 2022, 10, 2645-2652.	3.2	10
15	Hypersensitized Strain Sensors Based on Conductive Hydrogels with Excellent Conductivity and Good Mechanical Properties. ACS Sustainable Chemistry and Engineering, 2022, 10, 4425-4437.	3.2	19
16	Noninvasive in vivo study on the morphology and mechanical properties of palmar aponeurosis. Journal of Biomechanics, 2022, 135, 111027.	0.9	0
17	Load-dependent Variable Gearing Mechanism of Muscle-like Soft Actuator. Journal of Bionic Engineering, 2022, 19, 29-43.	2.7	5
18	A $\mathcal{T}^2$ -Tensor-Aided Multiscale Transformer for Remaining Useful Life Prediction in IIoT. IEEE Transactions on Industrial Informatics, 2022, 18, 8108-8118.	7.2	11

#	ARTICLE	IF	CITATIONS
19	Analysis and validation of a 3D finite element model for human forearm fracture. International Journal for Numerical Methods in Biomedical Engineering, 2022, , e3617.	1.0	1
20	LM-CNN: A Cloud-Edge Collaborative Method for Adaptive Fault Diagnosis With Label Sampling Space Enlarging. IEEE Transactions on Industrial Informatics, 2022, 18, 9057-9067.	7.2	12
21	Evaluating performance variations cross cloud data centres using multiview comparative workload traces analysis. Connection Science, 2022, 34, 1582-1608.	1.8	3
22	ADTT: A Highly Efficient Distributed Tensor-Train Decomposition Method for IIoT Big Data. IEEE Transactions on Industrial Informatics, 2021, 17, 1573-1582.	7.2	100
23	A Tensor-Based Multiattributes Visual Feature Recognition Method for Industrial Intelligence. IEEE Transactions on Industrial Informatics, 2021, 17, 2231-2241.	7.2	75
24	A Data-Driven Auto-CNN-LSTM Prediction Model for Lithium-Ion Battery Remaining Useful Life. IEEE Transactions on Industrial Informatics, 2021, 17, 3478-3487.	7.2	254
25	Early diagnosis of diabetic peripheral neuropathy based on infrared thermal imaging technology. Diabetes/Metabolism Research and Reviews, 2021, 37, e3429.	1.7	10
26	Association Between Pain in Knee Osteoarthritis and Mechanical Properties of Soft Tissue Around Knee Joint. IEEE Access, 2021, 9, 14599-14607.	2.6	2
27	Frictional performance of ostrich (Struthio camelus) foot sole on sand in all directions. Biomechanics and Modeling in Mechanobiology, 2021, 20, 671-681.	1.4	3
28	Development of a 3D Printed Bipedal Robot: Towards Humanoid Research Platform to Study Human Musculoskeletal Biomechanics. Journal of Bionic Engineering, 2021, 18, 150-170.	2.7	8
29	The Impact of Locomotor Speed on the Human Metatarsophalangeal Joint Kinematics. Frontiers in Bioengineering and Biotechnology, 2021, 9, 644582.	2.0	2
30	Speed-Related Energy Flow and Joint Function Change During Human Walking. Frontiers in Bioengineering and Biotechnology, 2021, 9, 666428.	2.0	4
31	4D printing of PLA/PCL shape memory composites with controllable sequential deformation. Bio-Design and Manufacturing, 2021, 4, 867-878.	3.9	47
32	Cloud-Edge-Based Lightweight Temporal Convolutional Networks for Remaining Useful Life Prediction in IIoT. IEEE Internet of Things Journal, 2021, 8, 12578-12587.	5.5	72
33	Integration 3D printing of bionic continuous carbon fiber reinforced resin composite. Materials Research Express, 2021, 8, 095602.	0.8	3
34	A Data-Driven Approach of Product Quality Prediction for Complex Production Systems. IEEE Transactions on Industrial Informatics, 2021, 17, 6457-6465.	7.2	78
35	Bioinspired actuators with intrinsic muscle-like mechanical properties. IScience, 2021, 24, 103023.	1.9	3
36	A comparative analysis of eleven neural networks architectures for small datasets of lung images of COVID-19 patients toward improved clinical decisions. Computers in Biology and Medicine, 2021, 139, 104887.	3.9	25

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37	Design of Decision Tree Structure with Improved BPNN Nodes for High-Accuracy Locomotion Mode Recognition Using a Single IMU. Sensors, 2021, 21, 526.	2.1	15
38	A Multiobjective multifactorial optimization algorithm based on decomposition and dynamic resource allocation strategy. Information Sciences, 2020, 511, 18-35.	4.0	52
39	Master data management for manufacturing big data: a method of evaluation for data network. World Wide Web, 2020, 23, 1407-1421.	2.7	11
40	A dynamic and static data based matching method for cloud 3D printing. Robotics and Computer-Integrated Manufacturing, 2020, 61, 101858.	6.1	19
41	Recent progress in 4D printing of stimuli-responsive polymeric materials. Science China Technological Sciences, 2020, 63, 532-544.	2.0	61
42	Cloud based 3D printing service platform for personalized manufacturing. Science China Information Sciences, 2020, 63, 1.	2.7	4
43	High-Performance Ionic-Polymer-Metal Composite: Toward Large-Deformation Fast-Response Artificial Muscles. Advanced Functional Materials, 2020, 30, 1908508.	7.8	111
44	Coding-Based Large-Scale Task Assignment for Industrial Edge Intelligence. IEEE Transactions on Network Science and Engineering, 2020, 7, 2286-2297.	4.1	33
45	<i>In Vivo</i> Assessment of Lower Limb Muscle Stress State Based on Shear Wave Elastography. IEEE Access, 2020, 8, 122185-122196.	2.6	4
46	Locomotor mechanism of Haplopelma hainanum based on Energy conservation analysis. Biology Open, 2020, 9, .	0.6	1
47	Biomechanical Functions of the Canine Metacarpal and Metatarsal Pads during Locomotion: A Comparative Analysis. Journal of Bionic Engineering, 2020, 17, 580-590.	2.7	1
48	A biomechanical analysis of 3D stress and strain patterns in patellar tendon during knee flexion. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3379.	1.0	6
49	A Wide-Deep-Sequence Model-Based Quality Prediction Method in Industrial Process Analysis. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 3721-3731.	7.2	58
50	In vivo assessment of material properties of muscles and connective tissues around the knee joint based on shear wave elastography. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 109, 103829.	1.5	11
51	Study on intelligent deformation characteristics of temperature-driven hydrogel actuators prepared via molding and 3D printing. Polymers for Advanced Technologies, 2020, 31, 1980-1993.	1.6	5
52	A Review of Biological Fluid Power Systems and Their Potential Bionic Applications. Journal of Bionic Engineering, 2019, 16, 367-399.	2.7	21
53	A Novel Cloud-Based Framework for the Elderly Healthcare Services Using Digital Twin. IEEE Access, 2019, 7, 49088-49101.	2.6	358
54	Pairwise comparison learning based bearing health quantitative modeling and its application in service life prediction. Future Generation Computer Systems, 2019, 97, 578-586.	4.9	41

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55	Analysis of Spidersâ€™ Joint Kinematics and Driving Modes under Different Ground Conditions. Applied Bionics and Biomechanics, 2019, 2019, 1-9.	0.5	4
56	A Visual Analysis Approach for Understanding Durability Test Data of Automotive Products. ACM Transactions on Intelligent Systems and Technology, 2019, 10, 1-23.	2.9	16
57	Multi-scale Dense Gate Recurrent Unit Networks for bearing remaining useful life prediction. Future Generation Computer Systems, 2019, 94, 601-609.	4.9	119
58	Real-Time Scheduling of Cloud Manufacturing Services Based on Dynamic Data-Driven Simulation. IEEE Transactions on Industrial Informatics, 2019, 15, 5042-5051.	7.2	84
59	Non-invasive Quantitative Assessment of Muscle Force Based on Ultrasonic Shear Wave Elastography. Ultrasound in Medicine and Biology, 2019, 45, 440-451.	0.7	29
60	A survey of visualization for smart manufacturing. Journal of Visualization, 2019, 22, 419-435.	1.1	71
61	Prediction of Bearing Remaining Useful Life With Deep Convolution Neural Network. IEEE Access, 2018, 6, 13041-13049.	2.6	177
62	Banded choropleth map. Personal and Ubiquitous Computing, 2018, 22, 503-510.	1.9	5
63	An event-triggered dynamic scheduling method for randomly arriving tasks in cloud manufacturing. International Journal of Computer Integrated Manufacturing, 2018, 31, 318-333.	2.9	78
64	A Blockchain Model for Industrial Internet. , 2018, , .		2
65	Simulation of Production Modes for Cloud Manufacturing Enterprises. , 2018, , .		7
66	Simulation Model of Dynamic Service Scheduling in Cloud Manufacturing. , 2018, , .		3
67	A Sharing Bike Scheduling Optimization Algorithm Based on Two-Dimensional Dynamic Model and Improved Genetic Algorithm. , 2018, , .		0
68	Modelling and simulation of logistics service selection in cloud manufacturing. Procedia CIRP, 2018, 72, 916-921.	1.0	32
69	Remaining Useful Life Prediction for Lithium-Ion Battery: A Deep Learning Approach. IEEE Access, 2018, 6, 50587-50598.	2.6	267
70	Bearing remaining useful life prediction based on deep autoencoder and deep neural networks. Journal of Manufacturing Systems, 2018, 48, 71-77.	7.6	257
71	Cloud manufacturing: key characteristics and applications. International Journal of Computer Integrated Manufacturing, 2017, 30, 501-515.	2.9	232
72	Influence of Mesostructure on Mechanical Property of Laminated Tiâ€“Al Composites. Advanced Engineering Materials, 2017, 19, 1700070.	1.6	6

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73	A sliding window-based multi-stage clustering and probabilistic forecasting approach for large multivariate time series data. <i>Journal of Statistical Computation and Simulation</i> , 2017, 87, 2494-2508.	0.7	10
74	Multi-bearing remaining useful life collaborative prediction: A deep learning approach. <i>Journal of Manufacturing Systems</i> , 2017, 43, 248-256.	7.6	209
75	Simulation analysis of ultrasonic detection for resistance spot welding based on COMSOL Multiphysics. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 93, 2089-2096.	1.5	12
76	Defect intelligent identification in resistance spot welding ultrasonic detection based on wavelet packet and neural network. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 90, 2581-2588.	1.5	53
77	Matching and selection of distributed 3D printing services in cloud manufacturing. , 2017, , .		7
78	Phalangeal joints kinematics during ostrich ( <i>Struthio camelus</i> ) locomotion. <i>PeerJ</i> , 2017, 5, e2857.	0.9	15
79	Detecting milling deformation in 7075 aluminum alloy thin-walled plates using finite difference method. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 85, 1291-1302.	1.5	21
80	Research on the impact of service provider cooperative relationship on cloud manufacturing platform. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 86, 2279-2290.	1.5	34
81	Customized production based on distributed 3D printing services in cloud manufacturing. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 84, 71-83.	1.5	120
82	An Optimal Allocation Method for Virtual Resource Considering Variable Metrics of Cloud Manufacturing Service. , 2015, , .		4
83	Cloud-Based Intelligent User Interface for Cloud Manufacturing: Model, Technology, and Application. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2015, 137, .	1.3	23
84	Cloud manufacturing: from concept to practice. <i>Enterprise Information Systems</i> , 2015, 9, 186-209.	3.3	222
85	A sketch&#x002B;fisheye interface for visual analytics of large time-series. , 2014, , .		0
86	Future Manufacturing Industry with Cloud Manufacturing. , 2014, , 127-152.		9
87	Cloud manufacturing: a new manufacturing paradigm. <i>Enterprise Information Systems</i> , 2014, 8, 167-187.	3.3	683
88	A modeling and description method of multidimensional information for manufacturing capability in cloud manufacturing system. <i>International Journal of Advanced Manufacturing Technology</i> , 2013, 69, 961-975.	1.5	89
89	An enzyme-linked immunosorbent assay for the determination of tribenuron-methyl in water and soil using a molecularly imprinted film as an artificial antibody. <i>Analytical Methods</i> , 2013, 5, 5677.	1.3	12
90	An Efficient Dynamic Load Balancing Method for Simulation of Variable Structure Systems. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
91	Cloud Manufacturing Platform: Operating Paradigm, Functional Requirements, and Architecture Design. , 2013, , .		9
92	A virtual machine deployment approach using knowledge curves in Cloud Simulation. , 2012, , .		0
93	Massive sensor data management framework in Cloud manufacturing based on Hadoop. , 2012, , .		34
94	A methodology towards virtualisation-based high performance simulation platform supporting multidisciplinary design of complex products. Enterprise Information Systems, 2012, 6, 267-290.	3.3	76
95	The optimal allocation model of computing resources in cloud manufacturing system. , 2011, , .		8
96	SSOA-E: Research on Semantic Service Oriented Architecture for Education Information System Integration. , 2009, , .		0
97	Diagnosing Evolution of Cloud Cluster via Spatio-temporal Trace Analysis. Journal of Circuits, Systems and Computers, 0, , .	1.0	0
98	Effect of oxygen addition and annealing time on microstructure and mechanical properties of Ti-34Nb alloy. Journal of Iron and Steel Research International, 0, , .	1.4	1