

Bin Fang

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

1,885
citations

411340

20
h-index

466096

32
g-index

97
all docs

97
docs citations

97
times ranked

1627
citing authors

#	ARTICLE	IF	CITATIONS
1	Multimode Grasping Soft Gripper Achieved by Layer Jamming Structure and Tendon-Driven Mechanism. <i>Soft Robotics</i> , 2022, 9, 233-249.	4.6	41
2	Visual Affordance Guided Tactile Material Recognition for Waste Recycling. <i>IEEE Transactions on Automation Science and Engineering</i> , 2022, 19, 2656-2664.	3.4	8
3	Generalization of Robot Force-Relevant Skills Through Adapting Compliant Profiles. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 1055-1062.	3.3	7
4	Multimode fusion perception for transparent glass recognition. <i>Industrial Robot</i> , 2022, 49, 625-633.	1.2	6
5	Research on Fault Diagnosis Method of Rolling Bearing Based on Feature Optimization and Self-Adaptive SVM. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-20.	0.6	2
6	A Review of Smart Materials for the Boost of Soft Actuators, Soft Sensors, and Robotics Applications. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2022, 35, .	1.9	30
7	Tactile-Based Fabric Defect Detection Using Convolutional Neural Network With Attention Mechanism. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-9.	2.4	18
8	A review on sensory perception for dexterous robotic manipulation. <i>International Journal of Advanced Robotic Systems</i> , 2022, 19, 172988062210959.	1.3	18
9	Non-destructive Fruit Firmness Evaluation Using Vision-Based Tactile Information. , 2022, , .		6
10	Multimodal Continual Learning Using Online Dictionary Updating. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2021, 13, 171-178.	2.6	0
11	Soft Robotic Finger Embedded with Visual Sensor for Bending Perception. <i>Robotica</i> , 2021, 39, 378-390.	1.3	7
12	Toward Image-to-Tactile Cross-Modal Perception for Visually Impaired People. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021, 18, 521-529.	3.4	13
13	An Interactive Perception Method for Warehouse Automation in Smart Cities. <i>IEEE Transactions on Industrial Informatics</i> , 2021, 17, 830-838.	7.2	16
14	Wearable sensing devices for upper limbs: A systematic review. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2021, 235, 117-130.	1.0	19
15	Personal-specific gait recognition based on latent orthogonal feature space. <i>Cognitive Computation and Systems</i> , 2021, 3, 61-69.	0.8	3
16	Editorial: Integrated Multi-modal and Sensorimotor Coordination for Enhanced Human-Robot Interaction. <i>Frontiers in Neurorobotics</i> , 2021, 15, 673659.	1.6	0
17	Cough Recognition Based on Mel-Spectrogram and Convolutional Neural Network. <i>Frontiers in Robotics and AI</i> , 2021, 8, 580080.	2.0	30
18	A Novel Humanoid Soft Hand with Variable Stiffness and Multi-modal Perception *. , 2021, , .		3

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19	Smart Bracelet System for Temperature Monitoring and Movement Tracking Analysis. Journal of Healthcare Engineering, 2021, 2021, 1-11.	1.1	14
20	Cross-Individual Gesture Recognition Based on Long Short-Term Memory Networks. Scientific Programming, 2021, 2021, 1-11.	0.5	4
21	Fabric defect detection using tactile information. , 2021, , .		7
22	Filter Bank Convolutional Neural Network for Short Time-Window Steady-State Visual Evoked Potential Classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2615-2624.	2.7	18
23	Cross-Modal Zero-Shot-Learning for Tactile Object Recognition. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 2466-2474.	5.9	25
24	Machine learning-based multi-modal information perception for soft robotic hands. Tsinghua Science and Technology, 2020, 25, 255-269.	4.1	31
25	A soft gripper with programmable effective length, tactile and curvature sensory feedback. Smart Materials and Structures, 2020, 29, 035006.	1.8	46
26	Wearable Technology for Robotic Manipulation and Learning. , 2020, , .		8
27	Reinforcement Learning from Imperfect Demonstrations under Soft Expert Guidance. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 5109-5116.	3.6	25
28	A Survey of the Development of Wearable Devices. , 2020, , .		6
29	Gait Neural Network for Human-Exoskeleton Interaction. Frontiers in Neurorobotics, 2020, 14, 58.	1.6	26
30	Reusing Discriminators for Encoding: Towards Unsupervised Image-to-Image Translation. , 2020, , .		107
31	Tension Sensor with Soft Optical Fiber for Tendon-Driven Robotic Hand. , 2020, , .		1
32	A petal-array capacitive tactile sensor with micro-pin for robotic fingertip sensing. , 2020, , .		4
33	Vision-based posture-consistent teleoperation of robotic arm using multi-stage deep neural network. Robotics and Autonomous Systems, 2020, 131, 103592.	3.0	9
34	Layer jamming-based soft robotic hand with variable stiffness for compliant and effective grasping. Cognitive Computation and Systems, 2020, 2, 44-49.	0.8	12
35	Applications of Developed Wearable Devices. , 2020, , 89-123.		0
36	Wearable Design and Computing. , 2020, , 65-87.		0

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37	Wearable Sensors. , 2020, , 33-63.		1
38	Learning from Wearable-Based Teleoperation Demonstration. , 2020, , 127-144.		2
39	Learning from Visual-Based Teleoperation Demonstration. , 2020, , 145-172.		0
40	Learning from Wearable-Based Indirect Demonstration. , 2020, , 173-203.		0
41	A Novel Interface Device Developed based on MRT for Prosthetic Hand. , 2020, , .		0
42	Haptic Glove for Object Recognition and Hand Motion Detection. , 2020, , .		2
43	Interactive video summarization with human intentions. Multimedia Tools and Applications, 2019, 78, 1737-1755.	2.6	2
44	Vision-based Teleoperation of Shadow Dexterous Hand using End-to-End Deep Neural Network. , 2019, , .		45
45	Autonomous robot navigation using Retinex algorithm for multiscale image adaptability in low-light environment. Intelligent Service Robotics, 2019, 12, 359-369.	1.6	12
46	A novel multi-modal tactile sensor design using thermochromic material. Science China Information Sciences, 2019, 62, 1.	2.7	10
47	PointNetGPD: Detecting Grasp Configurations from Point Sets. , 2019, , .		177
48	Lifelong Learning for Heterogeneous Multi-Modal Tasks. , 2019, , .		6
49	Survey of imitation learning for robotic manipulation. International Journal of Intelligent Robotics and Applications, 2019, 3, 362-369.	1.6	71
50	Skill learning for human-robot interaction using wearable device. Tsinghua Science and Technology, 2019, 24, 654-662.	4.1	27
51	Design and Workspace Analysis of a Parallel Ankle Rehabilitation Robot (PARR). Journal of Healthcare Engineering, 2019, 2019, 1-10.	1.1	30
52	Autoencoder-based transfer learning in brain-computer interface for rehabilitation robot. International Journal of Advanced Robotic Systems, 2019, 16, 172988141984086.	1.3	19
53	Attention-based Transfer Learning for Brain-computer Interface. , 2019, , .		5
54	Multimodal grasp data set: A novel visual-tactile data set for robotic manipulation. International Journal of Advanced Robotic Systems, 2019, 16, 172988141882157.	1.3	18

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55	A glove-based system for object recognition via visual-tactile fusion. Science China Information Sciences, 2019, 62, 1.	2.7	11
56	Learning to Grasp Familiar Objects Based on Experience and Objectsâ€™ Shape Affordance. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 2710-2723.	5.9	20
57	A cross-modal tactile sensor design for measuring robotic grasping forces. Industrial Robot, 2019, 46, 337-344.	1.2	13
58	Vision-Based Tactile Perception for Soft Robotic Hand. , 2019, , .		6
59	A Tendon-Driven Dexterous Hand Design with Tactile Sensor Array for Grasping and Manipulation. , 2019, , .		4
60	Pose Analysis of Humanoid Robot Imitation Process Based on Improved MLP Network. , 2019, , .		1
61	Deep Reinforcement Learning for Robotic Pushing and Picking in Cluttered Environment. , 2019, , .		47
62	Dynamic Gesture Recognition Using Inertial Sensors-based Data Gloves. , 2019, , .		17
63	Surface Material Retrieval Using Weakly Paired Cross-Modal Learning. IEEE Transactions on Automation Science and Engineering, 2019, 16, 781-791.	3.4	25
64	Optimal control scheme for pneumatic soft actuator under comparison of proportional and PWM-solenoid valves. Photonic Network Communications, 2019, 37, 153-163.	1.4	15
65	Kernel Regularized Nonlinear Dictionary Learning for Sparse Coding. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 766-775.	5.9	20
66	Active Affordance Exploration for Robot Grasping. Lecture Notes in Computer Science, 2019, , 426-438.	1.0	8
67	Multimodal Measurements Fusion for Surface Material Categorization. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 246-256.	2.4	45
68	Weakly Paired Multimodal Fusion for Object Recognition. IEEE Transactions on Automation Science and Engineering, 2018, 15, 784-795.	3.4	57
69	3D human gesture capturing and recognition by the IMMU-based data glove. Neurocomputing, 2018, 277, 198-207.	3.5	87
70	Predict Robot Grasp Outcomes based on Multi-Modal Information. , 2018, , .		9
71	A Dual-Modal Vision-Based Tactile Sensor for Robotic Hand Grasping. , 2018, , .		29
72	A novel mode controllable hybrid valve pressure control method for soft robotic gripper. International Journal of Advanced Robotic Systems, 2018, 15, 172988141880214.	1.3	13

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73	Structured Output-Associated Dictionary Learning for Haptic Understanding. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 1564-1574.	5.9	45
74	A novel data glove using inertial and magnetic sensors for motion capture and robotic arm-hand teleoperation. Industrial Robot, 2017, 44, 155-165.	1.2	36
75	Robotic teleoperation systems using a wearable multimodal fusion device. International Journal of Advanced Robotic Systems, 2017, 14, 172988141771705.	1.3	27
76	A hybrid deep architecture for robotic grasp detection. , 2017, , .		118
77	Robotic Room-Level Localization Using Multiple Sets of Sonar Measurements. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 2-13.	2.4	77
78	Robotic skills learning based on dynamical movement primitives using a wearable device. , 2017, , .		3
79	A novel wearable tactile sensor array designed for fingertip motion recognition. , 2017, , .		2
80	Vertical motion control of underwater robot based on hydrodynamics and kinematics analysis. , 2017, , .		4
81	Learning to detect slip for stable grasping. , 2017, , .		5
82	Mechanical design and analysis of a novel dexterous hand based on grasping manipulation. , 2017, , .		1
83	Multi-label tactile property analysis. , 2017, , .		4
84	Development of a Wearable Device for Motion Capturing Based on Magnetic and Inertial Measurement Units. Scientific Programming, 2017, 2017, 1-11.	0.5	19
85	Underwater Matching Correction Navigation Based on Geometric Features Using Sonar Point Cloud Data. Scientific Programming, 2017, 2017, 1-10.	0.5	8
86	A novel data glove for fingers motion capture using inertial and magnetic measurement units. , 2016, , .		6
87	Tactile sequence based object categorization: A Bag of features modeled by Linear Dynamic System with Symmetric Transition Matrix. , 2016, , .		2
88	Implementation of remotely operated vehicle for direct inspection of reactor pressure vessel and other water-filled infrastructure. Journal of Nuclear Science and Technology, 2016, 53, 1086-1096.	0.7	9
89	A robotic hand-arm teleoperation system using human arm/hand with a novel data glove. , 2015, , .		35
90	A novel method for hand pose estimation based on inertial and magnetic sensors. , 2014, , .		0

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91	An Optimal Calibration Method for a MEMS Inertial Measurement Unit. International Journal of Advanced Robotic Systems, 2014, 11, 14.	1.3	34
92	Two-step optimal filter design for the low-cost attitude and heading reference systems. IET Science, Measurement and Technology, 2013, 7, 240-248.	0.9	19
93	Attitude Estimation of Rigid Bodies Using MEMS Inertial Sensors. , 2011, , .		0
94	Singularity Analysis of the H4 Parallel Mechanisms with Isomorphic Sub-chains. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2010, 46, 42.	0.7	5
95	Visual-Tactile Fusion for Robotic Stable Grasping. , 0, , .		1