

Bin Fang

List of Publications by Year in descending order

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95
papers

1,885
citations

361413
20
h-index

414414
32
g-index

97
all docs

97
docs citations

97
times ranked

1457
citing authors

#	ARTICLE	IF	CITATIONS
1	Multimode Grasping Soft Gripper Achieved by Layer Jamming Structure and Tendon-Driven Mechanism. Soft Robotics, 2022, 9, 233-249.	8.0	41
2	Visual Affordance Guided Tactile Material Recognition for Waste Recycling. IEEE Transactions on Automation Science and Engineering, 2022, 19, 2656-2664.	5.2	8
3	Generalization of Robot Force-Relevant Skills Through Adapting Compliant Profiles. IEEE Robotics and Automation Letters, 2022, 7, 1055-1062.	5.1	7
4	Multimode fusion perception for transparent glass recognition. Industrial Robot, 2022, 49, 625-633.	2.1	6
5	Research on Fault Diagnosis Method of Rolling Bearing Based on Feature Optimization and Self-Adaptive SVM. Mathematical Problems in Engineering, 2022, 2022, 1-20.	1.1	2
6	A Review of Smart Materials for the Boost of Soft Actuators, Soft Sensors, and Robotics Applications. Chinese Journal of Mechanical Engineering (English Edition), 2022, 35, .	3.7	30
7	Tactile-Based Fabric Defect Detection Using Convolutional Neural Network With Attention Mechanism. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	18
8	A review on sensory perception for dexterous robotic manipulation. International Journal of Advanced Robotic Systems, 2022, 19, 172988062210959.	2.1	18
9	Non-destructive Fruit Firmness Evaluation Using Vision-Based Tactile Information. , 2022, , .		6
10	Multimodal Continual Learning Using Online Dictionary Updating. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 171-178.	3.8	0
11	Soft Robotic Finger Embedded with Visual Sensor for Bending Perception. Robotica, 2021, 39, 378-390.	1.9	7
12	Toward Image-to-Tactile Cross-Modal Perception for Visually Impaired People. IEEE Transactions on Automation Science and Engineering, 2021, 18, 521-529.	5.2	13
13	An Interactive Perception Method for Warehouse Automation in Smart Cities. IEEE Transactions on Industrial Informatics, 2021, 17, 830-838.	11.3	16
14	Wearable sensing devices for upper limbs: A systematic review. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 117-130.	1.8	19
15	Personal-specific gait recognition based on latent orthogonal feature space. Cognitive Computation and Systems, 2021, 3, 61-69.	1.4	3
16	Editorial: Integrated Multi-modal and Sensorimotor Coordination for Enhanced Human-Robot Interaction. Frontiers in Neurorobotics, 2021, 15, 673659.	2.8	0
17	Cough Recognition Based on Mel-Spectrogram and Convolutional Neural Network. Frontiers in Robotics and AI, 2021, 8, 580080.	3.2	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.	1.9	14
20	Cross-Individual Gesture Recognition Based on Long Short-Term Memory Networks. Scientific Programming, 2021, 2021, 1-11.	0.7	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.	4.9	18
23	Cross-Modal Zero-Shot-Learning for Tactile Object Recognition. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 2466-2474.	9.3	25
24	Machine learning-based multi-modal information perception for soft robotic hands. Tsinghua Science and Technology, 2020, 25, 255-269.	6.1	31
25	A soft gripper with programmable effective length, tactile and curvature sensory feedback. Smart Materials and Structures, 2020, 29, 035006.	3.5	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.	4.9	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.	2.8	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.	5.1	9
34	Layer jamming-based soft robotic hand with variable stiffness for compliant and effective grasping. Cognitive Computation and Systems, 2020, 2, 44-49.	1.4	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.	3.9	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.	2.6	12
46	A novel multi-modal tactile sensor design using thermochromic material. Science China Information Sciences, 2019, 62, 1.	4.3	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.	2.8	71
50	Skill learning for human-robot interaction using wearable device. Tsinghua Science and Technology, 2019, 24, 654-662.	6.1	27
51	Design and Workspace Analysis of a Parallel Ankle Rehabilitation Robot (PARR). Journal of Healthcare Engineering, 2019, 2019, 1-10.	1.9	30
52	Autoencoder-based transfer learning in brain-computer interface for rehabilitation robot. International Journal of Advanced Robotic Systems, 2019, 16, 172988141984086.	2.1	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.	2.1	18

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55	A glove-based system for object recognition via visual-tactile fusion. Science China Information Sciences, 2019, 62, 1.	4.3	11
56	Learning to Grasp Familiar Objects Based on Experience and Objects's Shape Affordance. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 2710-2723.	9.3	20
57	A cross-modal tactile sensor design for measuring robotic grasping forces. Industrial Robot, 2019, 46, 337-344.	2.1	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.	5.2	25
64	Optimal control scheme for pneumatic soft actuator under comparison of proportional and PWM-solenoid valves. Photonic Network Communications, 2019, 37, 153-163.	2.7	15
65	Kernel Regularized Nonlinear Dictionary Learning for Sparse Coding. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 766-775.	9.3	20
66	Active Affordance Exploration for Robot Grasping. Lecture Notes in Computer Science, 2019, , 426-438.	1.3	8
67	Multimodal Measurements Fusion for Surface Material Categorization. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 246-256.	4.7	45
68	Weakly Paired Multimodal Fusion for Object Recognition. IEEE Transactions on Automation Science and Engineering, 2018, 15, 784-795.	5.2	57
69	3D human gesture capturing and recognition by the IMMU-based data glove. Neurocomputing, 2018, 277, 198-207.	5.9	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.	2.1	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.	9.3	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.	2.1	36
75	Robotic teleoperation systems using a wearable multimodal fusion device. International Journal of Advanced Robotic Systems, 2017, 14, 172988141771705.	2.1	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.	4.7	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.	0.7	19
85	Underwater Matching Correction Navigation Based on Geometric Features Using Sonar Point Cloud Data. Scientific Programming, 2017, 2017, 1-10.	0.7	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.	1.3	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.	2.1	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.	1.6	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.	0.5	5
95	Visual-Tactile Fusion for Robotic Stable Grasping. , 0, , .		1