

Dapeng Yang

List of Publications by Year in descending order

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Version: 2024-02-01

111
papers

1,808
citations

361045

20
h-index

360668

35
g-index

112
all docs

112
docs citations

112
times ranked

1455
citing authors

#	ARTICLE	IF	CITATIONS
1	An anthropomorphic robot hand developed based on underactuated mechanism and controlled by EMG signals. <i>Journal of Bionic Engineering</i> , 2009, 6, 255-263.	2.7	122
2	Switching-State Phase Shift Method for Three-Phase-Current Reconstruction With a Single DC-Link Current Sensor. <i>IEEE Transactions on Industrial Electronics</i> , 2011, 58, 5186-5194.	5.2	111
3	Robust EMG pattern recognition in the presence of confounding factors: features, classifiers and adaptive learning. <i>Expert Systems With Applications</i> , 2018, 96, 208-217.	4.4	100
4	Combined Use of FSR Sensor Array and SVM Classifier for Finger Motion Recognition Based on Pressure Distribution Map. <i>Journal of Bionic Engineering</i> , 2012, 9, 39-47.	2.7	95
5	Development of a Flexible 3-D Tactile Sensor System for Anthropomorphic Artificial Hand. <i>IEEE Sensors Journal</i> , 2013, 13, 510-518.	2.4	65
6	Fingertip Three-Axis Tactile Sensor for Multifingered Grasping. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015, 20, 1875-1885.	3.7	59
7	Classification of Multiple Finger Motions During Dynamic Upper Limb Movements. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2017, 21, 134-141.	3.9	59
8	Decoding Simultaneous Multi-DOF Wrist Movements From Raw EMG Signals Using a Convolutional Neural Network. <i>IEEE Transactions on Human-Machine Systems</i> , 2019, 49, 411-420.	2.5	52
9	Design and Functional Evaluation of a Dexterous Myoelectric Hand Prosthesis With Biomimetic Tactile Sensor. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 1391-1399.	2.7	46
10	The Mechanical Design and Experiments of HIT/DLR Prosthetic Hand. , 2006, , .		43
11	DYNAMIC HAND MOTION RECOGNITION BASED ON TRANSIENT AND STEADY-STATE EMG SIGNALS. <i>International Journal of Humanoid Robotics</i> , 2012, 09, 1250007.	0.6	43
12	Accurate EMG onset detection in pathological, weak and noisy myoelectric signals. <i>Biomedical Signal Processing and Control</i> , 2017, 33, 306-315.	3.5	42
13	Improving the functionality, robustness, and adaptability of myoelectric control for dexterous motion restoration. <i>Experimental Brain Research</i> , 2019, 237, 291-311.	0.7	42
14	A Novel Unsupervised Adaptive Learning Method for Long-Term Electromyography (EMG) Pattern Recognition. <i>Sensors</i> , 2017, 17, 1370.	2.1	39
15	Development of a multi-DOF prosthetic hand with intrinsic actuation, intuitive control and sensory feedback. <i>Industrial Robot</i> , 2014, 41, 381-392.	1.2	38
16	Levenberg-Marquardt Based Neural Network Control for a Five-fingered Prosthetic Hand. , 0, , .		37
17	Computer Vision-Based Grasp Pattern Recognition With Application to Myoelectric Control of Dexterous Hand Prosthesis. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 2090-2099.	2.7	37
18	EMG Control for a Five-fingered Underactuated Prosthetic Hand Based on Wavelet Transform and Sample Entropy. , 2006, , .		35

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19	EMG pattern recognition and grasping force estimation: Improvement to the myocontrol of multi-DOF prosthetic hands. , 2009, , .		34
20	A Five-fingered Underactuated Prosthetic Hand System. , 2006, , .		30
21	A Five-fingered Underactuated Prosthetic Hand Control Scheme. , 0, , .		27
22	Estimation of hand grasp force based on forearm surface EMG. , 2009, , .		26
23	Experimental Study of an EMG-Controlled 5-DOF Anthropomorphic Prosthetic Hand for Motion Restoration. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 76, 427-441.	2.0	26
24	Dynamic training protocol improves the robustness of PR-based myoelectric control. Biomedical Signal Processing and Control, 2017, 31, 249-256.	3.5	26
25	An EMG-Based Deep Learning Approach for Multi-DOF Wrist Movement Decoding. IEEE Transactions on Industrial Electronics, 2022, 69, 7099-7108.	5.2	25
26	EMG Control for a Five-fingered Prosthetic Hand Based on Wavelet Transform and Autoregressive Model. , 2006, , .		22
27	On the development of intrinsically-actuated, multisensory dexterous robotic hands. ROBOMECH Journal, 2016, 3, .	0.9	21
28	Development and experimental evaluation of multi-fingered robot hand with adaptive impedance control for unknown environment grasping. Robotica, 2016, 34, 1168-1185.	1.3	21
29	An Inverse-Kinematics Table-Based Solution of a Humanoid Robot Finger With Nonlinearly Coupled Joints. IEEE/ASME Transactions on Mechatronics, 2009, 14, 273-281.	3.7	19
30	A novel grasping force control strategy for multi-fingered prosthetic hand. Journal of Central South University, 2012, 19, 1537-1542.	1.2	18
31	Capacitive Sensor Combining Proximity and Pressure Sensing for Accurate Grasping of a Prosthetic Hand. ACS Applied Electronic Materials, 2022, 4, 869-877.	2.0	18
32	EMG Pattern Recognition Using Convolutional Neural Network with Different Scale Signal/Spectra Input. International Journal of Humanoid Robotics, 2019, 16, 1950013.	0.6	17
33	A fast robotic arm gravity compensation updating approach for industrial application using sparse selection and reconstruction. Robotics and Autonomous Systems, 2022, 149, 103971.	3.0	16
34	A modular multisensory prosthetic hand. , 2014, , .		15
35	Solving the Time-Jerk Optimal Trajectory Planning Problem of a Robot Using Augmented Lagrange Constrained Particle Swarm Optimization. Mathematical Problems in Engineering, 2017, 2017, 1-10.	0.6	15
36	Analysis of Hand and Wrist Postural Synergies in Tolerance Grasping of Various Objects. PLoS ONE, 2016, 11, e0161772.	1.1	14

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37	Biomechatronic design and control of an anthropomorphic artificial hand for prosthetic applications. <i>Robotica</i> , 2016, 34, 2291-2308.	1.3	14
38	Design and development of a 7-DOF humanoid arm. , 2012, , .		13
39	Dexterous motion recognition for myoelectric control of multifunctional transradial prostheses. <i>Advanced Robotics</i> , 2014, 28, 1533-1543.	1.1	13
40	EMG dataset augmentation approaches for improving the multi-DOF wrist movement regression accuracy and robustness. , 2018, , .		12
41	Human-machine shared control: New avenue to dexterous prosthetic hand manipulation. <i>Science China Technological Sciences</i> , 2021, 64, 767-773.	2.0	12
42	Design and control of a coupling mechanism-based prosthetic hand. <i>Journal of Shanghai Jiaotong University (Science)</i> , 2010, 15, 571-577.	0.5	11
43	A synthetic framework for evaluating and designing an anthropomorphic prosthetic hand. <i>Journal of Bionic Engineering</i> , 2018, 15, 69-82.	2.7	11
44	Design of an Underactuated Finger Based on a Novel Nine-Bar Mechanism. <i>Journal of Mechanisms and Robotics</i> , 2020, 12, .	1.5	11
45	A Novel EMG Motion Pattern Classifier Based on Wavelet Transform and Nonlinearity Analysis Method. , 2006, , .		10
46	Design and control of a multisensory five-finger prosthetic hand. , 2014, , .		10
47	Simultaneous estimation of 2-DOF wrist movements based on constrained non-negative matrix factorization and Hadamard product. <i>Biomedical Signal Processing and Control</i> , 2020, 56, 101729.	3.5	10
48	DEVELOPMENT AND EXPERIMENT ANALYSIS OF ANTHROPOMORPHIC PROSTHETIC HAND WITH FLEXIBLE THREE-AXIS TACTILE SENSOR. <i>International Journal of Humanoid Robotics</i> , 2013, 10, 1350028.	0.6	9
49	A BIO-MECHANICAL DESIGNED PROSTHETIC HAND WITH MULTI-CONTROL STRATEGIES. <i>International Journal of Humanoid Robotics</i> , 2012, 09, 1250013.	0.6	8
50	Noise cancellation for electrotactile sensory feedback of myoelectric forearm prostheses. , 2014, , .		8
51	Design of a highly integrated underactuated finger towards prosthetic hand. , 2017, , .		8
52	Design and Preliminary Ground Experiment for Robotic Assembly of a Modular Space Telescope. <i>IEEE Access</i> , 2019, 7, 160870-160878.	2.6	8
53	Automatic Venous Segmentation in Venipuncture Robot Using Deep Learning. , 2021, , .		8
54	Development of an Anthropomorphic Prosthetic Hand for Man-Machine Interaction. <i>Lecture Notes in Computer Science</i> , 2010, , 38-46.	1.0	7

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55	An integrated inverse kinematic approach for the 7-DOF humanoid arm with offset wrist. , 2013, , .		7
56	Hand motion recognition based on pressure distribution maps and LS-SVM. , 2014, , .		7
57	Multifingered robot hand dynamic grasping control based on fingertip three-axis tactile sensor feedback. , 2014, , .		7
58	A 3-DOF hemi-constrained wrist motion/force detection device for deploying simultaneous myoelectric control. Medical and Biological Engineering and Computing, 2018, 56, 1669-1681.	1.6	7
59	A novel hybrid closed-loop control approach for dexterous prosthetic hand based on myoelectric control and electrical stimulation. Industrial Robot, 2018, 45, 526-538.	1.2	7
60	A Systematic Analysis of Hand Movement Functionality: Qualitative Classification and Quantitative Investigation of Hand Grasp Behavior. Frontiers in Neurorobotics, 2021, 15, 658075.	1.6	7
61	A novel phase current reconstruction method using a single DC-link current sensor. , 2009, , .		6
62	Analysis of the multi-finger dynamics for robot hand system based on EtherCAT. , 2014, , .		6
63	Inverse kinematic optimizations of 7R humanoid arms based on a joint parameterization. , 2014, , .		6
64	Analysis on the joint independence of hand and wrist. , 2016, , .		6
65	A Novel Grasping Control Method for Dexterous Prosthesis based on Eye-tracking. , 2019, , .		6
66	A Hybrid Mapping Method with Position and Stiffness for Manipulator Teleoperation. Applied Sciences (Switzerland), 2019, 9, 5005.	1.3	6
67	Observer-Based Dynamic Control of an Underactuated Hand. Advanced Robotics, 2010, 24, 123-137.	1.1	5
68	A design approach to the configuration of a prosthetic hand. Industrial Robot, 2015, 42, 359-370.	1.2	5
69	A synthetic framework for evaluating the anthropomorphic characteristics of prosthetic hands. , 2015, , .		5
70	A design of a miniaturized prosthetic wrist based on repetition rate of human wrist daily tasks. , 2016, , .		5
71	An adaptive socket with auto-adjusting air bladders for interfacing transhumeral prosthesis: A pilot study. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 812-822.	1.0	5
72	A Novel Method of Combining Computer Vision, Eye-Tracking, EMG, and IMU to Control Dexterous Prosthetic Hand. , 2019, , .		5

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73	An analytical inverse kinematic solution with the reverse coordinates for 6-DOF manipulators. , 2013, , .		4
74	A novel actuation configuration of robotic hand and the mechanical implementation via postural synergies. , 2017, , .		4
75	sEMG-based estimation of human arm force using regression model. , 2017, , .		4
76	Bio-inspired design of alternate rigid-flexible segments to improve the stiffness of a continuum manipulator. Science China Technological Sciences, 2020, 63, 1549-1559.	2.0	4
77	Control of myoelectric prosthetic hand with a novel proximity-tactile sensor. Science China Technological Sciences, 2022, 65, 1513-1523.	2.0	4
78	VRM: A Unified Framework for Closed-Form Solutions of a Special Class of Serial Manipulators. International Journal of Advanced Robotic Systems, 2015, 12, 38.	1.3	3
79	Biomimetic Tactile Data Driven Closed-loop Control of Myoelectric Prosthetic Hand-. , 2018, , .		3
80	A Compact Control System and A Myoelectric Control Method for Multi-DOFs Prosthetic Hand. , 2019, , .		3
81	Embedded Control System for Multi-DOF Anthropomorphic Prosthetic Hand and Its Grasping Strategy. Jiqiren/Robot, 2011, 33, 22-27.	0.4	3
82	Design of a Highly Compliant Underactuated Prosthetic Hand. , 2019, , .		3
83	Optimal kinematic control of humanoid arms with offset wrist. , 2014, , .		2
84	An actuation configuration of inter-module coordination and the evaluation for the mechanical implementation to a prosthetic hand. , 2016, , .		2
85	Design and control of an anthropomorphic prosthetic hand with a cosmesis. , 2016, , .		2
86	Real-time Dynamic Grasping Force Optimization of Multi-fingered Dextrous Hand *. , 2019, , .		2
87	Design of Multi-channel Electrical Stimulator Integrated with Online Impedance Measurement. Journal of Medical and Biological Engineering, 2020, 40, 943-950.	1.0	2
88	Three-Dimensional Simultaneous EMG Control Based on Multi-layer Support Vector Regression with Interactive Structure. Lecture Notes in Computer Science, 2015, , 282-293.	1.0	2
89	A Biomimetic impedance controller for Robotic Hand Variable Stiffness Grasping. , 2020, , .		2
90	The application of real-time operating system QNX in the computer modeling and simulation. , 2011, , .		1

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91	A real-time controller development framework for high degrees of freedom systems. , 2012, , .		1
92	An anthropomorphic controlled hand prosthesis system. Journal of Zhejiang University: Science C, 2012, 13, 769-780.	0.7	1
93	Adaptive learning of multi-finger motion recognition based on support vector machine. , 2013, , .		1
94	EMG Onset Detection Based on Teagerâ€™Kaiser Energy Operator and Morphological Close Operation. Lecture Notes in Computer Science, 2015, , 257-268.	1.0	1
95	Electrode Design for Electrotactile Feedback With Reduced Interference to Myoelectric Signal. IEEE Sensors Journal, 2021, 21, 16350-16358.	2.4	1
96	Learning Grasp Configuration Through Object-Specific Hand Primitives for Posture Planning of Anthropomorphic Hands. Frontiers in Neurorobotics, 2021, 15, 740262.	1.6	1
97	A Multi-Threshold-Based Force Regulation Policy for Prosthetic Hand Preventing Slippage. IEEE Access, 2021, 9, 9600-9609.	2.6	1
98	A Model-Free Synchronous Control of Humanoid Robot Finger. , 2021, , .		1
99	Quantitative Investigation of Hand Grasp Functionality: Thumb Grasping Behavior Adapting to Different Object Shapes, Sizes, and Relative Positions. Applied Bionics and Biomechanics, 2021, 2021, 1-17.	0.5	1
100	Reducing Anthropomorphic Hand Degrees of Actuation with Grasp-Function-Dependent and Joint-Element-Sparse Hand Synergies. International Journal of Humanoid Robotics, 0, , .	0.6	1
101	Hybrid Mapping Method: from Human to Robotic Hands with Dissimilar Kinematics. Journal of Bionic Engineering, 0, , .	2.7	1
102	China's space robotics for on-orbit servicing: the state of the art. National Science Review, 2023, 10, .	4.6	1
103	Gradient projection method of kinematically redundant manipulator based on improved scale factor. , 2014, , .		0
104	Optimization-based compliance control strategy of redundant robot for ORU replacements. , 2016, , .		0
105	2-DOF Simultaneous Control of Dexterous Prosthesis based on Constrained NMF and Hadamard Product. , 2019, , .		0
106	Research on Virtual Training System for Intelligent Upper Limb Prosthesis with Bidirectional Neural Channels. Lecture Notes in Computer Science, 2021, , 314-323.	1.0	0
107	SURFACE EMG FOR MULTI-PATTERN RECOGNITION WITH SENSORY FEEDBACK CONTROLLER OF HAND PROSTHESIS SYSTEM. International Journal of Robotics and Automation, 2013, 28, .	0.1	0
108	Online force optimization with input filter for robot hand based on EtherCAT. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
109	A straightforward and miniature implementation method of postural synergies to replicate human grasp characteristics accurately and intuitively. <i>Bioinspiration and Biomimetics</i> , 2022, 17, 026012.	1.5	0
110	Quantitative Investigation of Hand Grasp Functionality: Hand Joint Motion Correlation, Independence, and Grasping Behavior. <i>Applied Bionics and Biomechanics</i> , 2021, 2021, 1-14.	0.5	0
111	Physical-Parameter-Free Learning of Inverse Dynamics for Multi-DOF Industrial Robots via Sparsity and Feature Learning. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2022, 105, .	2.0	0