

# Dapeng Yang

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

94  
papers

1,177  
citations

21  
h-index

31  
g-index

112  
ext. papers

1,501  
ext. citations

2.9  
avg, IF

4.63  
L-index

| #  | Paper   | IF  | Citations |
|----|---|-----|-----------|
| 94 | An anthropomorphic robot hand developed based on underactuated mechanism and controlled by EMG signals. <i>Journal of Bionic Engineering</i> , <b>2009</b> , 6, 255-263   | 2.7 | 97        |
| 93 | Combined Use of FSR Sensor Array and SVM Classifier for Finger Motion Recognition Based on Pressure Distribution Map. <i>Journal of Bionic Engineering</i> , <b>2012</b> , 9, 39-47                                 | 2.7 | 77        |
| 92 | Switching-State Phase Shift Method for Three-Phase-Current Reconstruction With a Single DC-Link Current Sensor. <i>IEEE Transactions on Industrial Electronics</i> , <b>2011</b> , 58, 5186-5194                    | 8.9 | 69        |
| 91 | Robust EMG pattern recognition in the presence of confounding factors: features, classifiers and adaptive learning. <i>Expert Systems With Applications</i> , <b>2018</b> , 96, 208-217                             | 7.8 | 68        |
| 90 | Development of a Flexible 3-D Tactile Sensor System for Anthropomorphic Artificial Hand. <i>IEEE Sensors Journal</i> , <b>2013</b> , 13, 510-518  | 4   | 53        |
| 89 | Classification of Multiple Finger Motions During Dynamic Upper Limb Movements. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2017</b> , 21, 134-141   | 7.2 | 41        |
| 88 | Fingertip Three-Axis Tactile Sensor for Multifingered Grasping. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2015</b> , 20, 1875-1885   | 5.5 | 36        |
| 87 | The Mechanical Design and Experiments of HIT/DLR Prosthetic Hand <b>2006</b> ,  |     | 34        |
| 86 | DYNAMIC HAND MOTION RECOGNITION BASED ON TRANSIENT AND STEADY-STATE EMG SIGNALS. <i>International Journal of Humanoid Robotics</i> , <b>2012</b> , 09, 1250007  | 1.2 | 32        |
| 85 | Decoding Simultaneous Multi-DOF Wrist Movements From Raw EMG Signals Using a Convolutional Neural Network. <i>IEEE Transactions on Human-Machine Systems</i> , <b>2019</b> , 49, 411-420                            | 4.1 | 28        |
| 84 | EMG Control for a Five-fingered Underactuated Prosthetic Hand Based on Wavelet Transform and Sample Entropy <b>2006</b> ,   |     | 28        |
| 83 | A Novel Unsupervised Adaptive Learning Method for Long-Term Electromyography (EMG) Pattern Recognition. <i>Sensors</i> , <b>2017</b> , 17,  | 3.8 | 26        |
| 82 | Improving the functionality, robustness, and adaptability of myoelectric control for dexterous motion restoration. <i>Experimental Brain Research</i> , <b>2019</b> , 237, 291-311                                  | 2.3 | 26        |
| 81 | Design and Functional Evaluation of a Dexterous Myoelectric Hand Prosthesis With Biomimetic Tactile Sensor. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2018</b> , 26, 1391-1399 | 4.8 | 26        |
| 80 | Accurate EMG onset detection in pathological, weak and noisy myoelectric signals. <i>Biomedical Signal Processing and Control</i> , <b>2017</b> , 33, 306-315   | 4.9 | 25        |
| 79 | Development of a multi-DOF prosthetic hand with intrinsic actuation, intuitive control and sensory feedback. <i>Industrial Robot</i> , <b>2014</b> , 41, 381-392  | 1.4 | 25        |
| 78 | EMG pattern recognition and grasping force estimation: Improvement to the myocontrol of multi-DOF prosthetic hands <b>2009</b> ,  |     | 24        |

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|----|---|-----|----|
| 77 | Levenberg-Marquardt Based Neural Network Control for a Five-fingered Prosthetic Hand  |     | 24 |
| 76 | Experimental Study of an EMG-Controlled 5-DOF Anthropomorphic Prosthetic Hand for Motion Restoration. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2014</b> , 76, 427-441                  | 2.9 | 23 |
| 75 | Estimation of hand grasp force based on forearm surface EMG <b>2009</b> ,   |     | 21 |
| 74 | A Five-fingered Underactuated Prosthetic Hand Control Scheme  |     | 21 |
| 73 | A Five-fingered Underactuated Prosthetic Hand System <b>2006</b> ,  |     | 20 |
| 72 | Dynamic training protocol improves the robustness of PR-based myoelectric control. <i>Biomedical Signal Processing and Control</i> , <b>2017</b> , 31, 249-256  | 4.9 | 17 |
| 71 | A novel grasping force control strategy for multi-fingered prosthetic hand. <i>Journal of Central South University</i> , <b>2012</b> , 19, 1537-1542  | 2.1 | 16 |
| 70 | An Inverse-Kinematics Table-Based Solution of a Humanoid Robot Finger With Nonlinearly Coupled Joints. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2009</b> , 14, 273-281  | 5.5 | 16 |
| 69 | On the development of intrinsically-actuated, multisensory dexterous robotic hands. <i>ROBOMECH Journal</i> , <b>2016</b> , 3,  | 2.1 | 15 |
| 68 | EMG Control for a Five-fingered Prosthetic Hand Based on Wavelet Transform and Autoregressive Model <b>2006</b> ,   |     | 15 |
| 67 | Development and experimental evaluation of multi-fingered robot hand with adaptive impedance control for unknown environment grasping. <i>Robotica</i> , <b>2016</b> , 34, 1168-1185  | 2.1 | 14 |
| 66 | Biomechatronic design and control of an anthropomorphic artificial hand for prosthetic applications. <i>Robotica</i> , <b>2016</b> , 34, 2291-2308  | 2.1 | 12 |
| 65 | EMG Pattern Recognition Using Convolutional Neural Network with Different Scale Signal/Spectra Input. <i>International Journal of Humanoid Robotics</i> , <b>2019</b> , 16, 1950013   | 1.2 | 12 |
| 64 | Dexterous motion recognition for myoelectric control of multifunctional transradial prostheses. <i>Advanced Robotics</i> , <b>2014</b> , 28, 1533-1543  | 1.7 | 11 |
| 63 | 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> , <b>2020</b> , 28, 2090-2099 | 4.8 | 11 |
| 62 | Design and control of a coupling mechanism-based prosthetic hand. <i>Journal of Shanghai Jiaotong University (Science)</i> , <b>2010</b> , 15, 571-577  | 0.6 | 9  |
| 61 | Analysis of Hand and Wrist Postural Synergies in Tolerance Grasping of Various Objects. <i>PLoS ONE</i> , <b>2016</b> , 11, e0161772  | 3.7 | 9  |
| 60 | A modular multisensory prosthetic hand <b>2014</b> ,  |     | 8  |

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|----|---|-----|---|
| 59 | DEVELOPMENT AND EXPERIMENT ANALYSIS OF ANTHROPOMORPHIC PROSTHETIC HAND WITH FLEXIBLE THREE-AXIS TACTILE SENSOR. <i>International Journal of Humanoid Robotics</i> , <b>2013</b> , 10, 1350028                 | 1.2 | 8 |
| 58 | Design and development of a 7-DOF humanoid arm <b>2012</b> ,  |     | 8 |
| 57 | Solving the Time-Jerk Optimal Trajectory Planning Problem of a Robot Using Augmented Lagrange Constrained Particle Swarm Optimization. <i>Mathematical Problems in Engineering</i> , <b>2017</b> , 2017, 1-10 | 1.1 | 7 |
| 56 | A Novel EMG Motion Pattern Classifier Based on Wavelet Transform and Nonlinearity Analysis Method <b>2006</b> ,   |     | 7 |
| 55 | A 3-DOF hemi-constrained wrist motion/force detection device for deploying simultaneous myoelectric control. <i>Medical and Biological Engineering and Computing</i> , <b>2018</b> , 56, 1669-1681            | 3.1 | 6 |
| 54 | Hand motion recognition based on pressure distribution maps and LS-SVM <b>2014</b> ,  |     | 6 |
| 53 | Design and control of a multisensory five-finger prosthetic hand <b>2014</b> ,  |     | 6 |
| 52 | Multifingered robot hand dynamic grasping control based on fingertip three-axis tactile sensor feedback <b>2014</b> ,   |     | 6 |
| 51 | Noise cancellation for electrotactile sensory feedback of myoelectric forearm prostheses <b>2014</b> ,  |     | 6 |
| 50 | Development of an Anthropomorphic Prosthetic Hand for Man-Machine Interaction. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 38-46   | 0.9 | 6 |
| 49 | A BIO-MECHANICAL DESIGNED PROSTHETIC HAND WITH MULTI-CONTROL STRATEGIES. <i>International Journal of Humanoid Robotics</i> , <b>2012</b> , 09, 1250013  | 1.2 | 6 |
| 48 | EMG dataset augmentation approaches for improving the multi-DOF wrist movement regression accuracy and robustness <b>2018</b> ,   |     | 6 |
| 47 | . <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 1-1  | 8.9 | 6 |
| 46 | Analysis of the multi-finger dynamics for robot hand system based on EtherCAT <b>2014</b> ,   |     | 5 |
| 45 | Observer-Based Dynamic Control of an Underactuated Hand. <i>Advanced Robotics</i> , <b>2010</b> , 24, 123-137   | 1.7 | 5 |
| 44 | Design of an Underactuated Finger Based on a Novel Nine-Bar Mechanism. <i>Journal of Mechanisms and Robotics</i> , <b>2020</b> , 12,  | 2.2 | 5 |
| 43 | A synthetic framework for evaluating and designing an anthropomorphic prosthetic hand. <i>Journal of Bionic Engineering</i> , <b>2018</b> , 15, 69-82   | 2.7 | 4 |
| 42 | A novel hybrid closed-loop control approach for dexterous prosthetic hand based on myoelectric control and electrical stimulation. <i>Industrial Robot</i> , <b>2018</b> , 45, 526-538                        | 1.4 | 4 |

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|----|--|-----|---|
| 41 | Design of a highly integrated underactuated finger towards prosthetic hand <b>2017</b> ,   |     | 4 |
| 40 | A design approach to the configuration of a prosthetic hand. <i>Industrial Robot</i> , <b>2015</b> , 42, 359-370   | 1.4 | 4 |
| 39 | Capacitive Sensor Combining Proximity and Pressure Sensing for Accurate Grasping of a Prosthetic Hand. <i>ACS Applied Electronic Materials</i> ,   | 4   | 4 |
| 38 | A fast robotic arm gravity compensation updating approach for industrial application using sparse selection and reconstruction. <i>Robotics and Autonomous Systems</i> , <b>2022</b> , 149, 103971   | 3.5 | 4 |
| 37 | Analysis on the joint independence of hand and wrist <b>2016</b> ,   |     | 4 |
| 36 | <b>2019</b> ,  |     | 4 |
| 35 | Human-machine shared control: New avenue to dexterous prosthetic hand manipulation. <i>Science China Technological Sciences</i> , <b>2021</b> , 64, 767-773  | 3.5 | 4 |
| 34 | A synthetic framework for evaluating the anthropomorphic characteristics of prosthetic hands <b>2015</b> ,   |     | 3 |
| 33 | Inverse kinematic optimizations of 7R humanoid arms based on a joint parameterization <b>2014</b> ,  |     | 3 |
| 32 | An integrated inverse kinematic approach for the 7-DOF humanoid arm with offset wrist <b>2013</b> ,  |     | 3 |
| 31 | Simultaneous estimation of 2-DOF wrist movements based on constrained non-negative matrix factorization and Hadamard product. <i>Biomedical Signal Processing and Control</i> , <b>2020</b> , 56, 101729   | 4.9 | 3 |
| 30 | A design of a miniaturized prosthetic wrist based on repetition rate of human wrist daily tasks <b>2016</b> ,  |     | 3 |
| 29 | A Novel Grasping Control Method for Dexterous Prosthesis based on Eye-tracking* <b>2019</b> ,  |     | 3 |
| 28 | An adaptive socket with auto-adjusting air bladders for interfacing transhumeral prosthesis: A pilot study. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2019</b> , 233, 812-822 | 1.7 | 2 |
| 27 | Design and control of an anthropomorphic prosthetic hand with a cosmesis <b>2016</b> ,   |     | 2 |
| 26 | Optimal kinematic control of humanoid arms with offset wrist <b>2014</b> ,   |     | 2 |
| 25 | A novel actuation configuration of robotic hand and the mechanical implementation via postural synergies <b>2017</b> ,   |     | 2 |
| 24 | An analytical inverse kinematic solution with the reverse coordinates for 6-DOF manipulators <b>2013</b> ,   |     | 2 |

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|----|---|-----|---|
| 23 | Embedded Control System for Multi-DOF Anthropomorphic Prosthetic Hand and Its Grasping Strategy. <i>Jiqiren/Robot</i> , <b>2011</b> , 33, 22-27   |     | 2 |
| 22 | Three-Dimensional Simultaneous EMG Control Based on Multi-layer Support Vector Regression with Interactive Structure. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 282-293                                    | 0.9 | 2 |
| 21 | A Systematic Analysis of Hand Movement Functionality: Qualitative Classification and Quantitative Investigation of Hand Grasp Behavior. <i>Frontiers in Neurorobotics</i> , <b>2021</b> , 15, 658075                      | 3.4 | 2 |
| 20 | An actuation configuration of inter-module coordination and the evaluation for the mechanical implementation to a prosthetic hand <b>2016</b> ,   |     | 2 |
| 19 | A Compact Control System and A Myoelectric Control Method for Multi-DOFs Prosthetic Hand <b>2019</b> ,  |     | 2 |
| 18 | Design and Preliminary Ground Experiment for Robotic Assembly of a Modular Space Telescope. <i>IEEE Access</i> , <b>2019</b> , 7, 160870-160878   | 3.5 | 2 |
| 17 | Bio-inspired design of alternate rigid-flexible segments to improve the stiffness of a continuum manipulator. <i>Science China Technological Sciences</i> , <b>2020</b> , 63, 1549-1559                                   | 3.5 | 1 |
| 16 | Adaptive learning of multi-finger motion recognition based on support vector machine <b>2013</b> ,  |     | 1 |
| 15 | sEMG-based estimation of human arm force using regression model <b>2017</b> ,   |     | 1 |
| 14 | A real-time controller development framework for high degrees of freedom systems <b>2012</b> ,  |     | 1 |
| 13 | A novel phase current reconstruction method using a single DC-link current sensor <b>2009</b> ,   |     | 1 |
| 12 | A Biomimetic impedance controller for Robotic Hand Variable Stiffness Grasping <b>2020</b> ,  |     | 1 |
| 11 | Quantitative Investigation of Hand Grasp Functionality: Thumb Grasping Behavior Adapting to Different Object Shapes, Sizes, and Relative Positions. <i>Applied Bionics and Biomechanics</i> , <b>2021</b> , 2021, 2640422 | 1.6 | 1 |
| 10 | Design of a Highly Compliant Underactuated Prosthetic Hand* <b>2019</b> ,   |     | 1 |
| 9  | Design of Multi-channel Electrical Stimulator Integrated with Online Impedance Measurement. <i>Journal of Medical and Biological Engineering</i> , <b>2020</b> , 40, 943-950  | 2.2 | 1 |
| 8  | A Hybrid Mapping Method with Position and Stiffness for Manipulator Teleoperation. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 5005  | 2.6 | 1 |
| 7  | Electrode Design for Electrotactile Feedback With Reduced Interference to Myoelectric Signal. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 16350-16358   | 4   | 1 |
| 6  | VRM: A Unified Framework for Closed-Form Solutions of a Special Class of Serial Manipulators. <i>International Journal of Advanced Robotic Systems</i> , <b>2015</b> , 12, 38   | 1.4 | 0 |

- 5 EMG Onset Detection Based on Teager-Kaiser Energy Operator and Morphological Close Operation. *Lecture Notes in Computer Science*, **2015**, 257-268 0.9
- 4 An anthropomorphic controlled hand prosthesis system. *Journal of Zhejiang University: Science C*, **2012**, 13, 769-780
- 3 Research on Virtual Training System for Intelligent Upper Limb Prosthesis with Bidirectional Neural Channels. *Lecture Notes in Computer Science*, **2021**, 314-323 0.9
- 2 Learning Grasp Configuration Through Object-Specific Hand Primitives for Posture Planning of Anthropomorphic Hands. *Frontiers in Neurorobotics*, **2021**, 15, 740262 3.4
- 1 Quantitative Investigation of Hand Grasp Functionality: Hand Joint Motion Correlation, Independence, and Grasping Behavior.. *Applied Bionics and Biomechanics*, **2021**, 2021, 2787832 1.6