

Myoelectric control systemsâ€™A survey

Biomedical Signal Processing and Control
2, 275-294

DOI: [10.1016/j.bspc.2007.07.009](https://doi.org/10.1016/j.bspc.2007.07.009)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Application of Support Vector Machines in upper limb motion classification using myoelectric signals. , 2007, , .		10
2	Support Vector Machine-Based Classification Scheme for Myoelectric Control Applied to Upper Limb. IEEE Transactions on Biomedical Engineering, 2008, 55, 1956-1965.	2.5	682
3	On the Use of Longitudinal Intrafascicular Peripheral Interfaces for the Control of Cybernetic Hand Prostheses in Amputees. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 453-472.	2.7	106
4	Development of a microcontrolled bioinstrumentation system for active control of leg prostheses. , 2008, 2008, 2393-6.		1
5	Manifestation of fatigue in myoelectric signals of dynamic contractions produced during playing PC games. , 2008, 2008, 315-8.		34
6	Myoelectric based virtual joystick applied to electric powered wheelchair. , 2008, , .		6
7	Classification of upper arm EMG signals during object-specific grasp. , 2008, 2008, 5061-4.		16
8	Fuzzy discriminant analysis based feature projection in myoelectric control. , 2008, 2008, 5049-52.		4
9	Test-Retest Repeatability of Surface Electromyography Measurement for Hand Gesture. , 2008, , .		6
10	A REAL-TIME EMG DRIVEN VIRTUAL PROSTHESIS HAND. , 2009, , .		1
11	Hand gesture recognition and virtual game control based on 3D accelerometer and EMG sensors. , 2009, , .		128
12	Exploration on the feasibility of building muscle-computer interfaces using neck and shoulder motions. , 2009, 2009, 7018-21.		6
13	Fusion of electromyographic signals with proprioceptive sensor data in myoelectric pattern recognition for control of active transfemoral leg prostheses. , 2009, 2009, 4755-8.		7
14	Adaptive myoelectric human-machine interface for video games. , 2009, , .		2
15	A strategy for minimizing the effect of misclassifications during real time pattern recognition myoelectric control. , 2009, 2009, 1327-30.		12
16	Dynamic gesture recognition based on multiple sensors fusion technology. , 2009, 2009, 7014-7.		6
17	Feasibility of building robust surface electromyography-based hand gesture interfaces. , 2009, 2009, 2983-6.		7
18	Development of a myoelectric control scheme based on a time delayed neural network. , 2009, 2009, 3004-7.		11

#	ARTICLE	IF	CITATIONS
19	Use of the discriminant Fourier-derived cepstrum with feature-level post-processing for surface electromyographic signal classification. <i>Physiological Measurement</i> , 2009, 30, 1399-1413.	1.2	20
20	CHARACTERIZATION OF FINGER ISOMETRIC FORCE PRODUCTION WITH MAXIMUM POWER OF SURFACE ELECTROMYOGRAPHY. <i>Biomedical Engineering - Applications, Basis and Communications</i> , 2009, 21, 193-199.	0.3	2
21	Automatic adaptive onset detection using an electromyogram with individual difference for control of a meal assistance robot. <i>Journal of Medical Engineering and Technology</i> , 2009, 33, 322-327.	0.8	5
22	A novel swarm based feature selection algorithm in multifunction myoelectric control. <i>Journal of Intelligent and Fuzzy Systems</i> , 2009, 20, 175-185.	0.8	7
23	Characterization of EMG Patterns From Proximal Arm Muscles During Object- and Orientation-Specific Grasps. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 2529-2536.	2.5	20
24	Evolutionary fuzzy discriminant analysis feature projection technique in myoelectric control. <i>Pattern Recognition Letters</i> , 2009, 30, 699-707.	2.6	27
25	Robust EMG sensing system based on data fusion for myoelectric control of a robotic arm. <i>BioMedical Engineering OnLine</i> , 2009, 8, 5.	1.3	35
26	Orthogonal Fuzzy Neighborhood Discriminant Analysis for Multifunction Myoelectric Hand Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 1410-1419.	2.5	91
27	Multiple Binary Classifications via Linear Discriminant Analysis for Improved Controllability of a Powered Prosthesis. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2010, 18, 49-57.	2.7	182
28	Decoding subtle forearm flexions using fractal features of surface electromyogram from single and multiple sensors. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2010, 7, 53.	2.4	68
29	Hybrid independent component analysis and twin support vector machine learning scheme for subtle gesture recognition. <i>Biomedizinische Technik</i> , 2010, 55, 301-307.	0.9	11
30	Multichannel surface electromyography classification based on muscular synergy. , 2010, 2010, 1658-61.		3
31	Electromyographic signal integrated robot hand control for massage therapy applications. , 2010, , .		9
32	Technological platform for biomechanical analysis of static and dynamic tests of upper and lower limbs. , 2010, 2010, 1202-5.		0
33	EMG signals based gait phases recognition using hidden Markov models. , 2010, , .		37
34	Hierarchical myoelectric control of a human upper limb prosthesis. , 2010, , .		1
35	Feasibility of controlling prosthetic hand using sonomyography signal in real time: Preliminary study. <i>Journal of Rehabilitation Research and Development</i> , 2010, 47, 87.	1.6	35
36	Myoelectrical signal classification for the hierarchical control of a human hand prosthesis. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
37	Multi-class surface EMG classification using support vector machines and wavelet transform. , 2010, , .		3
38	Evaluation of EMG processing techniques using Information Theory. BioMedical Engineering OnLine, 2010, 9, 72.	1.3	92
39	Control of Hand Prostheses Using Peripheral Information. IEEE Reviews in Biomedical Engineering, 2010, 3, 48-68.	13.1	308
40	Finger rehabilitation system using multi-fingered haptic interface robot controlled by surface electromyogram. , 2010, , .		8
41	A biomechanical model for the development of myoelectric hand prosthesis control systems. , 2010, 2010, 519-23.		8
42	Precision grasping of a prosthetic hand based on virtual spring damper hypothesis. , 2010, , .		1
43	Automatic recognition of sign language subwords based on portable accelerometer and EMG sensors. , 2010, , .		49
45	Multiple kernel learning SVM-based EMG pattern classification for lower limb control. , 2010, , .		13
46	A novel pedestrian dead reckoning algorithm using wearable EMG sensors to measure walking strides. , 2010, , .		16
47	Online human training of a myoelectric prosthesis controller via actor-critic reinforcement learning. , 2011, 2011, 5975338.		85
48	Recognition of grasp types through principal components of DWT based EMG features. , 2011, 2011, 5975398.		22
49	Recognition of hand motions via surface EMG signal with rough entropy. , 2011, 2011, 4100-3.		4
50	Design and control of electromyogram prosthetic hand with high grasping force. , 2011, , .		13
51	Electromyogram (EMG) based fingers movement recognition using Neighborhood Preserving Analysis with QR-decomposition. , 2011, , .		9
52	Hardware implementation of surface electromyogram signal processing: A survey. , 2011, , .		3
53	A hybrid tool for reaching and grasping rehabilitation: The ArmeoFES. , 2011, 2011, 3047-50.		3
54	Neural Interfaces for Control of Upper Limb Prostheses: The State of the Art and Future Possibilities. PM and R, 2011, 3, 55-67.	0.9	148
55	Software Engineering and Computer Systems. Communications in Computer and Information Science, 2011, , .	0.4	0

#	ARTICLE	IF	CITATIONS
56	Universal Access in Human-Computer Interaction. Applications and Services. Lecture Notes in Computer Science, 2011, . .	1.0	1
57	SVM-based classification of EMG signals for enhanced interfaces in lower extremities exoskeletons. Gait and Posture, 2011, 33, S30-S31.	0.6	3
58	Myoelectric Knee Angle Estimation Algorithms for Control of Active Transfemoral Leg Prostheses. , 2011, , .		2
59	Development of a Neural Interface for PNS Motor Control. , 0, , .		0
60	Surface Electromyography-Based Facial Expression Recognition in Bi-Polar Configuration. Journal of Computer Science, 2011, 7, 1407-1415.	0.5	27
61	Evaluation of data mining approaches for the control of multifunctional arm prostheses. Integrated Computer-Aided Engineering, 2011, 18, 235-249.	2.5	6
62	Myoelectric Control Techniques for a Rehabilitation Robot. Applied Bionics and Biomechanics, 2011, 8, 21-37.	0.5	17
63	Finger Rehabilitation Support System Using a Multifingered Haptic Interface Controlled by a Surface Electromyogram. Journal of Robotics, 2011, 2011, 1-10.	0.6	12
64	Critical Exponent Analysis Applied to Surface EMG Signals for Gesture Recognition. Metrology and Measurement Systems, 2011, 18, .	1.4	10
65	Emerging Input Technologies for Always-Available Mobile Interaction. Foundations and Trends in Human-Computer Interaction, 2011, 4, 245-316.	1.8	18
66	A Framework for Hand Gesture Recognition Based on Accelerometer and EMG Sensors. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2011, 41, 1064-1076.	3.4	476
67	Selective Classification for Improved Robustness of Myoelectric Control Under Nonideal Conditions. IEEE Transactions on Biomedical Engineering, 2011, 58, 1698-1705.	2.5	139
68	A Decision-Based Velocity Ramp for Minimizing the Effect of Misclassifications During Real-Time Pattern Recognition Control. IEEE Transactions on Biomedical Engineering, 2011, 58, 2360-2368.	2.5	97
69	The Effects of Electrode Size and Orientation on the Sensitivity of Myoelectric Pattern Recognition Systems to Electrode Shift. IEEE Transactions on Biomedical Engineering, 2011, 58, 2537-2544.	2.5	222
70	Development of a Model Osseo-Magnetic Link for Intuitive Rotational Control of Upper-Limb Prostheses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 213-220.	2.7	13
71	Online Myoelectric Control of a Dexterous Hand Prosthesis by Transradial Amputees. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 260-270.	2.7	201
72	A novel humanâ€“machine interface based on recognition of multi-channel facial bioelectric signals. Australasian Physical and Engineering Sciences in Medicine, 2011, 34, 497-513.	1.4	24
73	Using affective humanâ€“machine interface to increase the operation performance in virtual construction crane training system: A novel approach. Automation in Construction, 2011, 20, 289-298.	4.8	72

#	ARTICLE	IF	CITATIONS
74	Wavelet basis functions in biomedical signal processing. Expert Systems With Applications, 2011, 38, 6190-6201.	4.4	138
75	The tracking of reaches in three-dimensions. , 2011, 2011, 5440-3.		0
76	Review of Electromyographic Control Systems Based on Pattern Recognition. IFMBE Proceedings, 2011, , 556-559.	0.2	3
77	Classification of upper limb motions in stroke using high density surface EMG. , 2011, 2011, 3367-70.		7
78	Effects of interelectrode distance on the robustness of myoelectric pattern recognition systems. , 2011, 2011, 3873-9.		4
79	Interpreting sign components from accelerometer and sEMG data for automatic sign language recognition. , 2011, 2011, 3358-61.		5
80	A Review of Control Methods for Electric Power Wheelchairs Based on Electromyography Signals with Special Emphasis on Pattern Recognition. IETE Technical Review (Institution of Electronics and Tj ETQq0 0 0 rgBT /Overlook 10 Tf 5		6
81	ELECTROMYOGRAPHY (EMG) SIGNAL CLASSIFICATION BASED ON DETRENDED FLUCTUATION ANALYSIS. Fluctuation and Noise Letters, 2011, 10, 281-301.	1.0	33
82	Application of Wavelet Analysis in EMG Feature Extraction for Pattern Classification. Measurement Science Review, 2011, 11, .	0.6	173
83	Gesture recognition in upper-limb prosthetics: A viability study using dynamic time warping and gyroscopes. , 2011, 2011, 4530-3.		9
84	Facial gesture recognition using two-channel bio-sensors configuration and fuzzy classifier: A pilot study. , 2011, , .		15
85	Vibrotactile sensory substitution in multi-fingered hand prostheses: Evaluation studies. , 2011, 2011, 5975477.		19
86	Influence of the weight actions of the hand prosthesis on the performance of pattern recognition based myoelectric control: Preliminary study. , 2011, 2011, 1620-3.		20
87	WAVELET-BASED DENOISING ALGORITHM FOR ROBUST EMG PATTERN RECOGNITION. Fluctuation and Noise Letters, 2011, 10, 157-167.	1.0	35
88	Target Achievement Control Test: Evaluating real-time myoelectric pattern-recognition control of multifunctional upper-limb prostheses. Journal of Rehabilitation Research and Development, 2011, 48, 619.	1.6	183
89	Myoelectric forearm prostheses: State of the art from a user-centered perspective. Journal of Rehabilitation Research and Development, 2011, 48, 719.	1.6	378
90	EMG Detection System and Design. Advanced Materials Research, 2012, 488-489, 1011-1015.	0.3	0
91	Hand-opening feedback for myoelectric forearm prostheses: Performance in virtual grasping tasks influenced by different levels of distraction. Journal of Rehabilitation Research and Development, 2012, 49, 1517.	1.6	27

#	ARTICLE	IF	CITATIONS
92	Estimation of Finger Joint Angles from sEMG Using a Neural Network Including Time Delay Factor and Recurrent Structure. ISRN Rehabilitation, 2012, 2012, 1-13.	0.6	31
93	The Muscle Activity Detection from Surface EMG Signal Using the Morphological Filter. Applied Mechanics and Materials, 0, 195-196, 1137-1141.	0.2	0
94	Alternative interface system by using surface electromyogram from unusual muscles contraction. , 2012, , .		0
95	Time-dependent spectral features for limb position invariant myoelectric pattern recognition. , 2012, , .		16
96	A neuromuscular interface for the elbow joint. , 2012, , .		0
97	Co-Adaptive and Affective Human-Machine Interface for Improving Training Performances of Virtual Myoelectric Forearm Prosthesis. IEEE Transactions on Affective Computing, 2012, 3, 285-297.	5.7	42
98	INVESTIGATING LONG-TERM EFFECTS OF FEATURE EXTRACTION METHODS FOR CONTINUOUS EMG PATTERN CLASSIFICATION. Fluctuation and Noise Letters, 2012, 11, 1250028.	1.0	32
99	DYNAMIC HAND MOTION RECOGNITION BASED ON TRANSIENT AND STEADY-STATE EMG SIGNALS. International Journal of Humanoid Robotics, 2012, 09, 1250007.	0.6	43
100	Prosthesis-guided training of pattern recognition-controlled myoelectric prosthesis. , 2012, 2012, 1876-9.		15
101	Electromyogram (EMG) feature reduction using Mutual Components Analysis for multifunction prosthetic fingers control. , 2012, , .		65
102	The Effects of Weight and Inertia of the Prosthesis on the Sensitivity of Electromyographic Pattern Recognition in Relax State. Journal of Prosthetics and Orthotics, 2012, 24, 86-92.	0.2	14
103	Application of Linear Discriminant Analysis in Dimensionality Reduction for Hand Motion Classification. Measurement Science Review, 2012, 12, .	0.6	51
104	Tongue Motion Detection Based on BEP Signal around Frontal Neck by Using SVM. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2012, 78, 3970-3978.	0.2	5
105	Human computer interface with online brute force feature selection. Biomedizinische Technik, 2012, 57, .	0.9	6
106	An EMG-Based Control for an Upper-Limb Power-Assist Exoskeleton Robot. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 1064-1071.	5.5	444
107	Smart wearable systems: Current status and future challenges. Artificial Intelligence in Medicine, 2012, 56, 137-156.	3.8	707
108	Recognition of Finger Flexion Motion from Ultrasound Image: A Feasibility Study. Ultrasound in Medicine and Biology, 2012, 38, 1695-1704.	0.7	50
109	Characterization of surface EMG with cumulative residual entropy. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
110	Classification temporal attribute of EMG signals. , 2012, , .		0
111	Prototyping potential control systems to assist complete quadriplegics. , 2012, , .		0
112	Classification of EMG signals by LWRBF network. , 2012, , .		0
113	Chest-mounted inertial measurement unit for pedestrian motion classification using continuous hidden Markov model. , 2012, , .		16
114	Dynamic switching and real-time machine learning for improved human control of assistive biomedical robots. , 2012, , .		29
115	Pattern recognition with surface EMG signal based wavelet transformation. , 2012, , .		19
116	Effect of dynamic change of arm position on myoelectric pattern recognition. , 2012, , .		10
117	A comparison of direct and pattern recognition control for a two degree-of-freedom above elbow virtual prosthesis. , 2012, 2012, 4332-5.		6
118	State transition control of a five-fingered pneumatic hand using a neural network. , 2012, , .		1
120	A real-time leg motion recognition system by using Mahalanobis distance and LS_SVM. , 2012, , .		1
121	A Sign-Component-Based Framework for Chinese Sign Language Recognition Using Accelerometer and sEMG Data. IEEE Transactions on Biomedical Engineering, 2012, 59, 2695-2704.	2.5	95
122	Ant colony optimization-based feature selection method for surface electromyography signals classification. Computers in Biology and Medicine, 2012, 42, 30-38.	3.9	67
123	Real-time myoelectric control of a multi-fingered hand prosthesis using principal components analysis. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 40.	2.4	88
124	Sample entropy analysis of surface EMG for improved muscle activity onset detection against spurious background spikes. Journal of Electromyography and Kinesiology, 2012, 22, 901-907.	0.7	167
125	Rehabilitation Assessment Based on the Complexity and Fluctuation of EMG Signal. Advanced Engineering Forum, 0, 6-7, 530-535.	0.3	0
126	The Usefulness of Mean and Median Frequencies in Electromyography Analysis. , 0, , .		150
127	Feature reduction and selection for EMG signal classification. Expert Systems With Applications, 2012, 39, 7420-7431.	4.4	1,110
128	Toward improved control of prosthetic fingers using surface electromyogram (EMG) signals. Expert Systems With Applications, 2012, 39, 10731-10738.	4.4	258

#	ARTICLE	IF	CITATIONS
129	Fractal analysis features for weak and single-channel upper-limb EMG signals. <i>Expert Systems With Applications</i> , 2012, 39, 11156-11163.	4.4	80
130	An Algorithm for the Estimation of the Signal-To-Noise Ratio in Surface Myoelectric Signals Generated During Cyclic Movements. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 219-225.	2.5	65
131	A Miniature Vibrotactile Sensory Substitution Device for Multifingered Hand Prosthetics. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 400-408.	2.5	127
132	Improving Myoelectric Pattern Recognition Robustness to Electrode Shift by Changing Interelectrode Distance and Electrode Configuration. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 645-652.	2.5	201
133	Spatial Filtering for Robust Myoelectric Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 1436-1443.	2.5	77
134	High-Density Myoelectric Pattern Recognition Toward Improved Stroke Rehabilitation. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 1649-1657.	2.5	138
135	Simultaneous and Proportional Force Estimation in Multiple Degrees of Freedom From Intramuscular EMG. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 1804-1807.	2.5	57
136	Abstract and Proportional Myoelectric Control for Multi-Fingered Hand Prostheses. <i>Annals of Biomedical Engineering</i> , 2013, 41, 2687-2698.	1.3	85
137	EMG-based facial gesture recognition through versatile elliptic basis function neural network. <i>BioMedical Engineering OnLine</i> , 2013, 12, 73.	1.3	39
138	SEMG-based hand motion recognition using cumulative residual entropy and extreme learning machine. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 417-427.	1.6	49
139	Boosting-Based EMG Patterns Classification Scheme for Robustness Enhancement. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2013, 17, 545-552.	3.9	61
140	Pattern recognition of number gestures based on a wireless surface EMG system. <i>Biomedical Signal Processing and Control</i> , 2013, 8, 184-192.	3.5	124
141	Intra-session and inter-day reliability of forearm surface EMG during varying hand grip forces. <i>Journal of Electromyography and Kinesiology</i> , 2013, 23, 216-222.	0.7	36
142	Adaptive sliding manifold slope via grasped object stiffness detection with a prosthetic hand. <i>Mechatronics</i> , 2013, 23, 1171-1179.	2.0	18
143	Probabilistic model for individual assessment of central hyperexcitability using the nociceptive withdrawal reflex: a biomarker for chronic low back and neck pain. <i>BMC Neuroscience</i> , 2013, 14, 110.	0.8	11
144	Hybrid brain/muscle-actuated control of an intelligent wheelchair. , 2013, , .		13
145	Hand gesture recognition for the control of an exoskeleton. , 2013, , .		2
146	Evaluation of the Hilbert-Huang Transform for myoelectric pattern classification: Towards a method to detect movement intention. , 2013, , .		2

#	ARTICLE	IF	CITATIONS
147	Validation of a Selective Ensemble-Based Classification Scheme for Myoelectric Control Using a Three-Dimensional Fitts' Law Test. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 616-623.	2.7	68
148	Classification of grip configuration using surface EMG. , 2013, , .		3
149	A novel method of non-stationary sEMG signal analysis and decomposition using a latent process model. , 2013, , .		2
150	Spatiotemporal analysis of EMG signals for muscle rehabilitation monitoring system. , 2013, , .		7
151	ECG artifact removal from EMG recordings using independent component analysis and adapted filter. , 2013, , .		3
152	Optimal EMG amplitude detectors for muscle-computer interface. , 2013, , .		8
153	Towards semg classification based on Bayesian and k-NN to control a prosthetic hand. , 2013, , .		10
154	Adaptive learning of multi-finger motion recognition based on support vector machine. , 2013, , .		1
155	Surface Versus Untargeted Intramuscular EMG Based Classification of Simultaneous and Dynamically Changing Movements. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 992-998.	2.7	34
156	A feasibility study on the use of anthropometric variables to make muscleâ€“computer interface more practical. Engineering Applications of Artificial Intelligence, 2013, 26, 1681-1688.	4.3	23
157	Bispectrum-based features classification for myoelectric control. Biomedical Signal Processing and Control, 2013, 8, 153-168.	3.5	35
158	EMG feature evaluation for improving myoelectric pattern recognition robustness. Expert Systems With Applications, 2013, 40, 4832-4840.	4.4	490
159	The recognition of multi-finger prehensile postures using LDA. Biomedical Signal Processing and Control, 2013, 8, 706-712.	3.5	35
160	Continuous Hidden Markov Model for Pedestrian Activity Classification and Gait Analysis. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 1073-1083.	2.4	107
161	Human Model Reference Adaptive Control of a Prosthetic Hand. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 72, 41-56.	2.0	10
162	Muscle computer interfaces for driver distraction reduction. Computer Methods and Programs in Biomedicine, 2013, 110, 137-149.	2.6	54
163	A physiological basis for control of a prosthetic hand. Biomedical Signal Processing and Control, 2013, 8, 6-15.	3.5	34
164	Electromyography-Based Locomotion Pattern Recognition and Personal Positioning Toward Improved Context-Awareness Applications. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 1216-1227.	5.9	26

#	ARTICLE	IF	CITATIONS
165	Myoelectric control of a virtual hand based on third-order cumulants. , 2013, , .		0
166	Feature extraction and classification of sEMG signals applied to a virtual hand prosthesis. , 2013, 2013, 1911-4.		4
168	Bioinspired Sinusoidal Finger Joint Synergies for a Dexterous Robotic Hand to Screw and Unscrew Objects With Different Diameters. IEEE/ASME Transactions on Mechatronics, 2013, 18, 612-623.	3.7	43
170	Training Strategies for Mitigating the Effect of Proportional Control on Classification in Pattern Recognitionâ€”Based Myoelectric Control. Journal of Prosthetics and Orthotics, 2013, 25, 76-83.	0.2	75
171	Surface Electromyography Signal Processing and Classification Techniques. Sensors, 2013, 13, 12431-12466.	2.1	643
172	Myoelectric Walking Mode Classification for Transtibial Amputees. IEEE Transactions on Biomedical Engineering, 2013, 60, 2745-2750.	2.5	76
173	A novel feature reduction method for real-time EMG pattern recognition system. , 2013, , .		4
174	Towards improved partial-hand prostheses: The effect of wrist kinematics on pattern-recognition-based control. , 2013, , .		5
175	Non-contact versus contact-based sensing methodologies for in-home upper arm robotic rehabilitation. , 2013, 2013, 6650487.		5
176	Improving EMG based classification of basic hand movements using EMD. , 2013, 2013, 5754-7.		106
177	Neuromuscular interfacing: A novel approach to EMG-driven multiple DOF physiological models. , 2013, 2013, 6631-4.		3
178	EMG based classification of basic hand movements based on time-frequency features. , 2013, , .		59
179	Surface EMG signals based elbow joint torque prediction. , 2013, , .		3
180	User dependent interface based on facial expression. , 2013, , .		1
181	Real-time estimation of tongue movement based on suprahyoid muscle activity. , 2013, 2013, 4605-8.		14
182	Use of Simulated Inertia to Improve the Performance of a BEP Human-Computer Interface. , 2013, , .		0
183	Modeling Aggressive Behaviors With Evolutionary Taxonomers. IEEE Transactions on Human-Machine Systems, 2013, 43, 302-313.	2.5	7
184	The effect of involuntary motor activity on myoelectric pattern recognition: a case study with chronic stroke patients. Journal of Neural Engineering, 2013, 10, 046015.	1.8	17

#	ARTICLE	IF	CITATIONS
185	EMG AMPLITUDE ESTIMATORS BASED ON PROBABILITY DISTRIBUTION FOR MUSCLEâ€“COMPUTER INTERFACE. Fluctuation and Noise Letters, 2013, 12, 1350016.	1.0	19
187	Feature-channel subset selection for optimising myoelectric human-machine interface design. International Journal of Biomechanics and Biomedical Robotics, 2013, 2, 195.	0.1	7
188	Robust Bio-Signal Based Control of an Intelligent Wheelchair. Robotics, 2013, 2, 187-197.	2.1	25
189	Recent Trends in EMG-Based Control Methods for Assistive Robots. , 0, , .		31
191	Myoelectric Pattern Identification of Stroke Survivors Using Multivariate Empirical Mode Decomposition. Journal of Healthcare Engineering, 2014, 5, 261-274.	1.1	7
192	Subject-specific EMG pattern classification of active hand movements for prosthesis applications. , 2014, , .		1
193	Robust sEMG electrodes configuration for pattern recognition based prosthesis control. , 2014, , .		18
194	Dexterous motion recognition for myoelectric control of multifunctional transradial prostheses. Advanced Robotics, 2014, 28, 1533-1543.	1.1	13
195	A characterization of the effect of limb position on EMG features to guide the development of effective prosthetic control schemes. , 2014, 2014, 662-7.		23
196	Time-division multiplexing for myoelectric closed-loop control using electrotactile feedback. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 138.	2.4	36
197	On the robustness of EMG features for pattern recognition based myoelectric control; A multi-dataset comparison. , 2014, 2014, 650-3.		24
198	Electromyography (EMG)-based Chinese voice command recognition. , 2014, , .		5
199	The role of muscle synergies in myoelectric control: trends and challenges for simultaneous multifunction control. Journal of Neural Engineering, 2014, 11, 051001.	1.8	143
200	An intelligent electromyogram signal characterization method based on neuro-fuzzy model. Journal of Intelligent and Fuzzy Systems, 2014, 27, 2623-2634.	0.8	1
201	An Upper-Limb Power-Assist Exoskeleton Using Proportional Myoelectric Control. Sensors, 2014, 14, 6677-6694.	2.1	146
202	ANN-based EMG classification for myoelectric control. International Journal of Medical Engineering and Informatics, 2014, 6, 365.	0.2	19
203	Guest Editorial. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 711-715.	2.7	15
204	EMG based classification of percentage of maximum voluntary contraction using artificial neural networks. , 2014, , .		3

#	ARTICLE	IF	CITATIONS
205	Finger pinch force estimation through muscle activations using a surface EMG sleeve on the forearm. , 2014, , .		10
206	Motion Normalized Proportional Control for Improved Pattern Recognition-Based Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 149-157.	2.7	164
207	EMG signal based control of an intelligent wheelchair. , 2014, , .		6
208	Feature extraction of wavelet transform for sEMG pattern classification. , 2014, , .		2
209	Tongue motor training support system. , 2014, 2014, 3582-5.		2
210	Invariant Surface EMG Feature Against Varying Contraction Level for Myoelectric Control Based on Muscle Coordination. IEEE Journal of Biomedical and Health Informatics, 2014, 19, 1-1.	3.9	88
211	Application of wavelet packet transform on myoelectric pattern recognition for upper limb rehabilitation after stroke. , 2014, 2014, 3578-81.		0
212	A Performance Comparison of EMG Classification Methods for Hand and Finger Motion. , 2014, , .		12
213	Comparison of Multilayer Perceptron and Radial Basis Function Neural Networks for EMG-Based Facial Gesture Recognition. Lecture Notes in Electrical Engineering, 2014, , 285-294.	0.3	9
214	Stereovision and augmented reality for closed-loop control of grasping in hand prostheses. Journal of Neural Engineering, 2014, 11, 046001.	1.8	95
215	Motor strategy patterns study of diabetic neuropathic individuals while walking. A wavelet approach. Journal of Biomechanics, 2014, 47, 2475-2482.	0.9	20
216	A comparison of the real-time controllability of pattern recognition to conventional myoelectric control for discrete and simultaneous movements. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 5.	2.4	76
217	Analysis of Electrode Shift Effects on Wavelet Features Embedded in a Myoelectric Pattern Recognition System. Assistive Technology, 2014, 26, 71-80.	1.2	5
218	Prosthetic Myoelectric Control Strategies: A Clinical Perspective. Current Surgery Reports, 2014, 2, 1.	0.4	191
219	Hybrid soft computing systems for electromyographic signals analysis: a review. BioMedical Engineering OnLine, 2014, 13, 8.	1.3	26
220	A real-time EMG pattern recognition method for virtual myoelectric hand control. Neurocomputing, 2014, 136, 345-355.	3.5	103
221	Closed-Loop Control of Grasping With a Myoelectric Hand Prosthesis: Which Are the Relevant Feedback Variables for Force Control?. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 1041-1052.	2.7	132
222	Wiener filtering of surface EMG with a priori SNR estimation toward myoelectric control for neurological injury patients. Medical Engineering and Physics, 2014, 36, 1711-1715.	0.8	22

#	ARTICLE	IF	CITATIONS
223	Pattern recognition based analysis of arm EMG signals and classification with artificial neural networks. , 2014, , .		2
224	sEMG-Based Joint Force Control for an Upper-Limb Power-Assist Exoskeleton Robot. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1043-1050.	3.9	207
225	Identification of real-time active hand movements EMG signals for control of prosthesis robotic hand. , 2014, , .		4
226	Correlation Analysis of Electromyogram Signals for Multiuser Myoelectric Interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 745-755.	2.7	87
227	Using Hidden Markov Models to track upper extremity arm motions for surface electromyographic based robot teleoperation. , 2014, , .		2
228	Supervised Hierarchical Bayesian Model-Based Electromyographic Control and Analysis. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1214-1224.	3.9	16
229	Is Accurate Mapping of EMG Signals on Kinematics Needed for Precise Online Myoelectric Control?. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 549-558.	2.7	177
230	Feature extraction of the first difference of EMG time series for EMG pattern recognition. Computer Methods and Programs in Biomedicine, 2014, 117, 247-256.	2.6	102
231	Detection of forearm movements using wavelets and Adaptive Neuro-Fuzzy Inference System (ANFIS). , 2014, , .		2
232	Realtime recognition of multi-finger prehensile gestures. Biomedical Signal Processing and Control, 2014, 13, 262-269.	3.5	18
233	Forehead sEMG signal based HMI for hands-free control. Journal of China Universities of Posts and Telecommunications, 2014, 21, 98-105.	0.8	4
234	Identification of Contaminant Type in Surface Electromyography (EMG) Signals. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 774-783.	2.7	65
235	Development of a multi-DOF prosthetic hand with intrinsic actuation, intuitive control and sensory feedback. Industrial Robot, 2014, 41, 381-392.	1.2	38
236	Continuous and simultaneous estimation of finger kinematics using inputs from an EMG-to-muscle activation model. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 122.	2.4	150
237	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
238	EMG based manâ€“machine interactionâ€“A pattern recognition research platform. Robotics and Autonomous Systems, 2014, 62, 864-870.	3.0	45
239	Fully Implantable Multichannel EMG Measurement System: First Results. Biosystems and Biorobotics, 2014, , 51-59.	0.2	1
240	The Extraction of Neural Information from the Surface EMG for the Control of Upper-Limb Prostheses: Emerging Avenues and Challenges. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 797-809.	2.7	725

#	ARTICLE	IF	CITATIONS
241	Pattern Recognition of Eight Hand Motions Using Feature Extraction of Forearm EMG Signal. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2014, 84, 473-480.	0.8	37
242	Electromyogram synergy control of a dexterous artificial hand to unscrew and screw objects. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 41.	2.4	24
243	Channel and feature selection for a surface electromyographic pattern recognition task. Expert Systems With Applications, 2014, 41, 5190-5200.	4.4	44
244	Several practical issues toward implementing myoelectric pattern recognition for stroke rehabilitation. Medical Engineering and Physics, 2014, 36, 754-760.	0.8	20
245	Anthropomorphic Control of a Dexterous Artificial Hand via Task Dependent Temporally Synchronized Synergies. Journal of Bionic Engineering, 2014, 11, 236-248.	2.7	24
246	Towards limb position invariant myoelectric pattern recognition using time-dependent spectral features. Neural Networks, 2014, 55, 42-58.	3.3	153
247	Feature and Channel Selection Using Correlation Based Method for Hand Posture Classification in Multiple Arm Positions. Biosystems and Biorobotics, 2014, , 227-236.	0.2	1
248	Quantification and solutions of arm movements effect on sEMG pattern recognition. Biomedical Signal Processing and Control, 2014, 13, 189-197.	3.5	57
249	What limits the performance of current invasive brain machine interfaces?. Frontiers in Systems Neuroscience, 2014, 8, 68.	1.2	57
250	Estimation of prosthetic arm motions using stump arm kinematics. , 2014, , .		5
251	Automatic misclassification rejection for LDA classifier using ROC curves. , 2015, 2015, 482-5.		5
252	Processing of surface EMG through pattern recognition techniques aimed at classifying shoulder joint movements. , 2015, 2015, 2107-10.		8
253	Perception-Assist with a Lower-Limb Power-Assist Robot for Sitting Motion. , 2015, , .		8
254	Rapid bicycle gear switching based on physiological cues. , 2015, , .		2
255	Intelligent myoelectric pattern recognition system of 11 hand motions using ant colony optimisation method. International Journal of Intelligent Systems Technologies and Applications, 2015, 14, 110.	0.2	1
256	A novel EMG-free prosthetic interface system using intra-socket force measurement and pinch gestures. , 2015, , .		0
257	Using myoelectric signals to recognize grips and movements of the hand. , 2015, , .		1
258	A comparison of classification based confidence metrics for use in the design of myoelectric control systems. , 2015, 2015, 7278-83.		18

#	ARTICLE	IF	CITATIONS
259	Real-time motion discrimination considering variation of EMG signals associated with lapse of time. , 2015, 2015, 490-3.		0
260	The estimation of Knee Joint angle based on Generalized Regression Neural Network (GRNN). , 2015, , .		7
261	Control systems of rehabilitation engineering equipment " A review. , 2015, , .		0
262	Time-frequency facial gestures EMG analysis using bilinear distribution. , 2015, , .		3
263	A Novel Phonology- and Radical-Coded Chinese Sign Language Recognition Framework Using Accelerometer and Surface Electromyography Sensors. Sensors, 2015, 15, 23303-23324.	2.1	44
264	Three-Way Analysis of Spectrospatial Electromyography Data: Classification and Interpretation. PLoS ONE, 2015, 10, e0127231.	1.1	7
265	Current state of digital signal processing in myoelectric interfaces and related applications. Biomedical Signal Processing and Control, 2015, 18, 334-359.	3.5	231
266	Processing of sEMG signals for online motion of a single robot joint through GMM modelization. , 2015, , .		5
267	Using common spatial pattern algorithm for unsupervised real-time estimation of fingertip forces from sEMG signals. , 2015, , .		5
268	Phantom movements from physiologically inappropriate muscles: A case study with a high transhumeral amputee. , 2015, 2015, 3488-91.		6
269	EMG signal based finger movement recognition for prosthetic hand control. , 2015, , .		15
270	EMG Signal Based Knee Joint Angle Estimation of Flexion and Extension with Extreme Learning Machine (ELM) for Enhancement of Patient-Robotic Exoskeleton Interaction. Lecture Notes in Computer Science, 2015, , 583-590.	1.0	1
271	Simple and Computationally Efficient Movement Classification Approach for EMG-controlled Prosthetic Hand: ANFIS vs. Artificial Neural Network. Intelligent Automation and Soft Computing, 2015, 21, 559-573.	1.6	14
272	On the use of high-order cumulant and bispectrum for muscular-activity detection. Biomedical Signal Processing and Control, 2015, 18, 325-333.	3.5	21
273	Hand kinematics estimation to control prosthetic devices: a nonlinear approach for simultaneous and proportional estimation of 15 DoFs. , 2015, , .		2
274	A pattern recognition system for myoelectric based prosthesis hand control. , 2015, , .		4
275	Estimation of elbow joint angle by NARX model using EMG data. , 2015, , .		7
276	Preliminary evaluation of the tactile feedback system based on artificial skin and electrotactile stimulation. , 2015, 2015, 4554-7.		10

#	ARTICLE	IF	CITATIONS
277	Dependence Independence Measure for Posterior and Anterior EMG Sensors Used in Simple and Complex Finger Flexion Movements: Evaluation Using SDICA. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1689-1696.	3.9	28
278	Facial Expression Recognition with sEMG Method. , 2015, , .		14
279	Upper-limb movement classification based on sEMG signal validation with continuous channel selection. , 2015, 2015, 486-9.		6
280	Feature extraction and pattern recognition of EMG-based signal for hand movements. , 2015, , .		11
281	Improved pattern recognition classification accuracy for surface myoelectric signals using spectral enhancement. Biomedical Signal Processing and Control, 2015, 18, 61-68.	3.5	13
282	Adaptive myoelectric control applied to video game. Biomedical Signal Processing and Control, 2015, 18, 153-160.	3.5	4
283	Development of a control system for artificially rehabilitated limbs: a review. Biological Cybernetics, 2015, 109, 141-162.	0.6	12
284	Sensory Feedback in Prosthetics: A Standardized Test Bench for Closed-Loop Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 267-276.	2.7	33
285	EMG Biofeedback for online predictive control of grasping force in a myoelectric prosthesis. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 55.	2.4	81
286	Proportional Myoelectric Control of Robots: Muscle Synergy Development Drives Performance Enhancement, Retainment, and Generalization. IEEE Transactions on Robotics, 2015, 31, 259-268.	7.3	72
287	Bio-signal based control in assistive robots: a survey. Digital Communications and Networks, 2015, 1, 85-101.	2.7	84
288	Myoelectric control of artificial limb inspired by quantum information processing. Physica Scripta, 2015, 90, 035001.	1.2	3
289	Closed-Loop Control of Myoelectric Prostheses With Electrotactile Feedback: Influence of Stimulation Artifact and Blanking. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 807-816.	2.7	49
290	EMG Onset Detection Based on Teagerâ€™Kaiser Energy Operator and Morphological Close Operation. Lecture Notes in Computer Science, 2015, , 257-268.	1.0	1
291	Electromyography (EMG) based signal analysis for physiological device application in lower limb rehabilitation. , 2015, , .		17
292	A Versatile Embedded Platform for EMG Acquisition and Gesture Recognition. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 620-630.	2.7	173
293	Analysis of Electromyography in Dynamic Hand Motions Using L-Kurtosis. Applied Mechanics and Materials, 2015, 781, 604-607.	0.2	4
294	Concurrent Adaptation of Human and Machine Improves Simultaneous and Proportional Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 618-627.	2.7	69

#	ARTICLE	IF	CITATIONS
295	Hand gesture-based interface with multichannel sEMG band enabling unknown gesture discrimination. , 2015, , .		10
296	Recognition of sign language numbers via electromyography signals. , 2015, , .		4
297	Surface EMG and intra-socket force measurement to control a prosthetic device. , 2015, , .		1
298	Low-cost wearable multichannel surface EMG acquisition for prosthetic hand control. , 2015, , .		38
299	Nonlinear multiscale Maximal Lyapunov Exponent for accurate myoelectric signal classification. Applied Soft Computing Journal, 2015, 36, 633-640.	4.1	50
300	Multi-Modal Sensing Techniques for Interfacing Hand Prostheses: A Review. IEEE Sensors Journal, 2015, 15, 6065-6076.	2.4	130
301	A robust measure of probability density function of various noises in electromyography (EMG) signal acquisition. , 2015, , .		4
302	A review on hybrid myoelectric control systems for upper limb prosthesis. , 2015, , .		27
303	First-in-man demonstration of a fully implanted myoelectric sensors system to control an advanced electromechanical prosthetic hand. Journal of Neuroscience Methods, 2015, 244, 85-93.	1.3	170
304	Classification of Anticipatory Signals for Grasp and Release from Surface Electromyography. Sensors, 2016, 16, 1782.	2.1	14
305	Grasping Pattern Recognition and Grasping Force Estimation For Prosthetic Hands. ITM Web of Conferences, 2016, 7, 09016.	0.4	2
306	Basic Hand Gestures Classification Based on Surface Electromyography. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-7.	0.7	16
307	mHealth For Aging China: Opportunities and Challenges. , 2016, 7, 53.		94
308	High-density force myography: A possible alternative for upper-limb prosthetic control. Journal of Rehabilitation Research and Development, 2016, 53, 443-456.	1.6	96
309	Force Myography to Control Robotic Upper Extremity Prostheses: A Feasibility Study. Frontiers in Bioengineering and Biotechnology, 2016, 4, 18.	2.0	103
310	Assessment of a Wearable Force- and Electromyography Device and Comparison of the Related Signals for Myocontrol. Frontiers in Neurorobotics, 2016, 10, 17.	1.6	64
311	Wavelet Packet Feature Assessment for High-Density Myoelectric Pattern Recognition and Channel Selection toward Stroke Rehabilitation. Frontiers in Neurology, 2016, 7, 197.	1.1	22
312	A Novel Percutaneous Electrode Implant for Improving Robustness in Advanced Myoelectric Control. Frontiers in Neuroscience, 2016, 10, 114.	1.4	25

#	ARTICLE	IF	CITATIONS
313	Surface EMG-based Sketching Recognition Using Two Analysis Windows and Gene Expression Programming. <i>Frontiers in Neuroscience</i> , 2016, 10, 445.	1.4	14
314	Local Band Spectral Entropy Based on Wavelet Packet Applied to Surface EMG Signals Analysis. <i>Entropy</i> , 2016, 18, 41.	1.1	7
315	Complexity Analysis of Surface EMG for Overcoming ECG Interference toward Proportional Myoelectric Control. <i>Entropy</i> , 2016, 18, 106.	1.1	18
316	Random Forest-Based Recognition of Isolated Sign Language Subwords Using Data from Accelerometers and Surface Electromyographic Sensors. <i>Sensors</i> , 2016, 16, 100.	2.1	50
317	A Component-Based Vocabulary-Extensible Sign Language Gesture Recognition Framework. <i>Sensors</i> , 2016, 16, 556.	2.1	28
318	A Review of Classification Techniques of EMG Signals during Isotonic and Isometric Contractions. <i>Sensors</i> , 2016, 16, 1304.	2.1	266
319	A Robust Feature Set for Wearable Multichannel Myoelectric Devices in Practice. , 2016, , .		1
320	Prediction of isometric motor tasks and effort levels based on high-density EMG in patients with incomplete spinal cord injury. <i>Journal of Neural Engineering</i> , 2016, 13, 046002.	1.8	17
321	An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation. <i>Advanced Materials</i> , 2016, 28, 4462-4471.	11.1	240
322	The estimation of grasping force based on the feature extracted from EMG signals. , 2016, , .		1
323	A fusion of time-domain descriptors for improved myoelectric hand control. , 2016, , .		24
324	Development of a model for sEMG based joint-torque estimation using Swarm techniques. , 2016, , .		3
325	Design and implementation of a low cost multichannel rectified EMG acquisition system. , 2016, , .		3
326	Improving robustness against electrode shift of sEMG based hand gesture recognition using online semi-supervised learning. , 2016, , .		4
327	A convolutional neural network for robotic arm guidance using sEMG based frequency-features. , 2016, , .		52
328	Finger movements classification from grasping spherical objects with surface electromyography using time domain based features. , 2016, , .		4
329	Robotic Arm Activation using Surface Electromyography with LABVIEW. <i>IEEE Latin America Transactions</i> , 2016, 14, 3597-3605.	1.2	6
330	Improving the recognition of grips and movements of the hand using myoelectric signals. <i>BMC Medical Informatics and Decision Making</i> , 2016, 16, 78.	1.5	4

#	ARTICLE	IF	CITATIONS
331	Integrated and flexible multichannel interface for electrotactile stimulation. Journal of Neural Engineering, 2016, 13, 046014.	1.8	82
332	A Pedestrian Dead Reckoning system using SEMG based on activities recognition. , 2016, , .		1
333	A method to improve the robustness of grasping pattern recognition for prosthetic hands. , 2016, , .		1
334	Estimation of elbow kinematics under fatigue and non-fatigue conditions using MLPN network based on sEMG signal. , 2016, , .		0
335	Robustness of Using Dynamic Motions and Template Matching to the Limb Position Effect in Myoelectric Classification. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2016, 138, .	0.9	11
336	Combined influence of forearm orientation and muscular contraction on EMG pattern recognition. Expert Systems With Applications, 2016, 61, 154-161.	4.4	140
337	Surface EMG based handgrip force predictions using gene expression programming. Neurocomputing, 2016, 207, 568-579.	3.5	32
338	The Soft-SixthFinger: a Wearable EMG Controlled Robotic Extra-Finger for Grasp Compensation in Chronic Stroke Patients. IEEE Robotics and Automation Letters, 2016, 1, 1000-1006.	3.3	90
339	Learning to modulate the partial powers of a single sEMG power spectrum through a novel humanâ€“computer interface. Human Movement Science, 2016, 47, 60-69.	0.6	10
340	Probability Density Functions of Stationary Surface EMG Signals in Noisy Environments. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1547-1557.	2.4	49
341	A novel immersive augmented reality system for prosthesis training and assessment. , 2016, , .		10
342	Real time Electronic Control of Multi Fingered Hand Based on Sensors. Procedia Computer Science, 2016, 92, 253-259.	1.2	2
343	Real Time Identification of Human Forearm Kinematics from Surface EMG Signal Using Artificial Neural Network Models. Procedia Technology, 2016, 25, 44-51.	1.1	14
344	Design Considerations for Wireless Acquisition of Multichannel sEMG Signals in Prosthetic Hand Control. IEEE Sensors Journal, 2016, , 1-1.	2.4	28
345	Towards an SEMG-based tele-operated robot for masticatory rehabilitation. Computers in Biology and Medicine, 2016, 75, 243-256.	3.9	17
346	Electrotactile EMG feedback improves the control of prosthesis grasping force. Journal of Neural Engineering, 2016, 13, 056010.	1.8	80
347	Muscle-tendon units localization and activation level analysis based on high-density surface EMG array and NMF algorithm. Journal of Neural Engineering, 2016, 13, 066001.	1.8	34
348	Performance analysis of two ANN based classifiers for EMG signals to identify hand motions. , 2016, , .		8

#	ARTICLE	IF	CITATIONS
349	Multichannel electrotactile feedback for simultaneous and proportional myoelectric control. Journal of Neural Engineering, 2016, 13, 056015.	1.8	39
350	Real-time feature extraction from EMG signals. , 2016, , .		3
351	Feature extraction and classification for EMG signals using linear discriminant analysis. , 2016, , .		53
352	Electromyographic control of a robotic arm for educational purposes. , 2016, , .		0
353	Gesture recognition by instantaneous surface EMG images. Scientific Reports, 2016, 6, 36571.	1.6	393
354	Spectral and mathematical evaluation of electromyography signals for clinical use. International Journal of Biomathematics, 2016, 09, 1650094.	1.5	6
355	Continuous estimation of ankle joint angular position based on the myoelectric signals. , 2016, , .		6
356	Proportional estimation of finger movements from high-density surface electromyography. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 73.	2.4	60
357	Compliant finger sensor for sensorimotor studies in MEG and MR environment. Smart Materials and Structures, 2016, 25, 075030.	1.8	3
358	Effects of muscle fatigue on the usability of a myoelectric human-computer interface. Human Movement Science, 2016, 49, 225-238.	0.6	13
359	EMG Feature Set Selection Through Linear Relationship for Grasp Recognition. Journal of Medical and Biological Engineering, 2016, 36, 883-890.	1.0	24
360	A comparison of post-processing techniques on the performance of EMG based pattern recognition system for the transradial amputees. , 2016, , .		2
361	Hyperdimensional biosignal processing: A case study for EMG-based hand gesture recognition. , 2016, , .		103
362	A canonical correlation analysis based EMG classification algorithm for eliminating electrode shift effect. , 2016, 2016, 867-870.		6
363	Role of Muscle Synergies in Real-Time Classification of Upper Limb Motions using Extreme Learning Machines. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 76.	2.4	40
364	Independent Long Fingers are not Essential for a Grasping Hand. Scientific Reports, 2016, 6, 35545.	1.6	26
365	Classification of non-weight bearing lower limb movements: Towards a potential treatment for phantom limb pain based on myoelectric pattern recognition. , 2016, 2016, 5457-5460.		5
366	Advantages of Nanosensors in the Development of Interfaces for Bioelectric Prostheses. MATEC Web of Conferences, 2016, 79, 01051.	0.1	2

#	ARTICLE	IF	CITATIONS
367	Single channel myoelectric control of a 3D printed transradial prosthesis. Cogent Engineering, 2016, 3, 1245541.	1.1	3
368	Finger Position Classification from Myoelectric Signal using Time Domain Based Features. , 2016, , .		1
369	Spatial distribution of HD-EMG improves identification of task and force in patients with incomplete spinal cord injury. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 41.	2.4	38
370	Locomotor Adaptation by Transtibial Amputees Walking With an Experimental Powered Prosthesis Under Continuous Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 573-581.	2.7	61
371	Improving the Performance Against Force Variation of EMG Controlled Multifunctional Upper-Limb Prostheses for Transradial Amputees. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 650-661.	2.7	231
372	Treatment of the Partial Hand Amputation: An Engineering Perspective. IEEE Reviews in Biomedical Engineering, 2016, 9, 32-48.	13.1	43
373	Distance and mutual information methods for EMG feature and channel subset selection for classification of hand movements. Biomedical Signal Processing and Control, 2016, 27, 24-31.	3.5	71
374	Myoelectric Control for Adaptable Biomechanical Energy Harvesting. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 364-373.	2.7	22
375	Bayesian Filtering of Surface EMG for Accurate Simultaneous and Proportional Prosthetic Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 1333-1341.	2.7	38
376	Hand movements classification for myoelectric control system using adaptive resonance theory. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 85-102.	1.4	7
377	Impact of Load Variation on Joint Angle Estimation From Surface EMG Signals. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 1342-1350.	2.7	49
378	An Analysis of Intrinsic and Extrinsic Hand Muscle EMG for Improved Pattern Recognition Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 485-494.	2.7	98
379	Classification of Multiple Finger Motions During Dynamic Upper Limb Movements. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 134-141.	3.9	59
380	Ranking hand movements for myoelectric pattern recognition considering forearm muscle structure. Medical and Biological Engineering and Computing, 2017, 55, 1507-1518.	1.6	13
382	Online Simulation of Mechatronic Neural Interface Systems: Two Case-Studies. Communications in Computer and Information Science, 2017, , 255-275.	0.4	3
383	Electromyography(EMG) sensor controlled assistive orthotic robotic arm for forearm movement. , 2017, , .		15
384	Study on Interaction Between Temporal and Spatial Information in Classification of EMG Signals for Myoelectric Prostheses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1832-1842.	2.7	71
385	Deep learning-based artificial vision for grasp classification in myoelectric hands. Journal of Neural Engineering, 2017, 14, 036025.	1.8	123

#	ARTICLE	IF	CITATIONS
386	Design and fuzzy logic control of an active wrist orthosis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 728-746.	1.0	4
387	A novel fuzzy approach for automatic Brunnstrom stage classification using surface electromyography. Medical and Biological Engineering and Computing, 2017, 55, 1367-1378.	1.6	23
388	Myoelectric Pattern Recognition Based on Muscle Synergies for Simultaneous Control of Dexterous Finger Movements. IEEE Transactions on Human-Machine Systems, 2017, 47, 576-582.	2.5	31
389	Effect of window length on performance of the elbow-joint angle prediction based on electromyography. Journal of Physics: Conference Series, 2017, 853, 012014.	0.3	14
390	Optimization of EMG movement recognition for use in an upper limb wearable robot. , 2017, , .		8
391	A Framework of Temporal-Spatial Descriptors-Based Feature Extraction for Improved Myoelectric Pattern Recognition. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1821-1831.	2.7	101
392	Comparative evaluation of EMG signal features for myoelectric controlled human arm prosthetics. Biocybernetics and Biomedical Engineering, 2017, 37, 326-335.	3.3	46
393	Muscular synergy classification and myoelectric control using high-order cross-cumulants. Neural Computing and Applications, 2017, 28, 2979-2993.	3.2	1
394	Surface EMG Signal Classification by Using WPD and Ensemble Tree Classifiers. IFMBE Proceedings, 2017, , 475-481.	0.2	20
395	Omnidirectional Assistive Wheelchair: Design and Control with Isometric Myoelectric Based Intention Classification. Procedia Computer Science, 2017, 105, 68-74.	1.2	12
396	Wireless sEMG-Based Body-Machine Interface for Assistive Technology Devices. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 967-977.	3.9	27
397	Accurate EMG onset detection in pathological, weak and noisy myoelectric signals. Biomedical Signal Processing and Control, 2017, 33, 306-315.	3.5	42
398	Elbow joint angle and elbow movement velocity estimation using NARX-multiple layer perceptron neural network model with surface EMG time domain parameters. Journal of Back and Musculoskeletal Rehabilitation, 2017, 30, 515-525.	0.4	15
399	Design and Myoelectric Control of an Anthropomorphic Prosthetic Hand. Journal of Bionic Engineering, 2017, 14, 47-59.	2.7	95
400	The Virtual Trackpad: An Electromyography-Based, Wireless, Real-Time, Low-Power, Embedded Hand-Gesture-Recognition System Using an Event-Driven Artificial Neural Network. IEEE Transactions on Circuits and Systems II: Express Briefs, 2017, 64, 1257-1261.	2.2	46
401	Real-time myoelectric control for a lower-limb assistive exoskeleton. Advanced Robotics, 2017, 31, 291-302.	1.1	1
402	Correlation coefficient based feature selection for actuating myoelectric prosthetic arm. , 2017, , .		3
403	Decoding of individual finger movements from surface EMG signals using vector autoregressive hierarchical hidden Markov models (VARHHMM). , 2017, 2017, 1518-1523.		7

#	ARTICLE	IF	CITATIONS
404	Simple space-domain features for low-resolution sEMG pattern recognition. , 2017, 2017, 62-65.		9
405	Prosthetic design directives: Low-cost hands within reach. , 2017, 2017, 1524-1530.		10
406	Robust EMG Pattern Recognition with Electrode Donning/Doffing and Multiple Confounding Factors. Lecture Notes in Computer Science, 2017, , 413-424.	1.0	4
407	A passive wrist with switchable stiffness for a body-powered hydraulically actuated hand prosthesis. , 2017, 2017, 1197-1202.		11
408	Hybrid Vision Based Reach-to-Grasp Task Planning Method for Trans-Humeral Prostheses. IEEE Access, 2017, 5, 16149-16161.	2.6	12
409	A survey on sEMG control strategies of wearable hand exoskeleton for rehabilitation. , 2017, , .		18
410	Toward wearable supernumerary robotic fingers to compensate missing grasping abilities in hemiparetic upper limb. International Journal of Robotics Research, 2017, 36, 1414-1436.	5.8	52
411	User adaptation in Myoelectric Man-Machine Interfaces. Scientific Reports, 2017, 7, 4437.	1.6	104
412	A stretchable, conductive rubber sensor to detect muscle contraction for prosthetic hand control. , 2017, , .		16
413	Context-dependent adaptation improves robustness of myoelectric control for upper-limb prostheses. Journal of Neural Engineering, 2017, 14, 056016.	1.8	12
414	Real-time EMG-based Human Machine Interface using dynamic hand gestures. , 2017, , .		4
415	A Control Scheme to Minimize Muscle Energy for Power Assistant Robotic Systems Under Unknown External Perturbation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 2313-2327.	2.7	8
416	Clinical Evaluation of a Socket-Ready Naturally Controlled Multichannel Upper Limb Prosthetic System. Biosystems and Biorobotics, 2017, , 3-7.	0.2	7
417	A System for Electrotactile Feedback Using Electronic Skin and Flexible Matrix Electrodes: Experimental Evaluation. IEEE Transactions on Haptics, 2017, 10, 162-172.	1.8	57
418	Classification of ankle joint movements based on surface electromyography signals for rehabilitation robot applications. Medical and Biological Engineering and Computing, 2017, 55, 747-758.	1.6	31
419	Dynamic training protocol improves the robustness of PR-based myoelectric control. Biomedical Signal Processing and Control, 2017, 31, 249-256.	3.5	26
420	Evaluation of extreme learning machine for classification of individual and combined finger movements using electromyography on amputees and non-amputees. Neural Networks, 2017, 85, 51-68.	3.3	53
421	Comparative study on estimation of elbow kinematics based on EMG time domain parameters using neural network and ANFIS NARX model. Journal of Intelligent and Fuzzy Systems, 2017, 32, 791-805.	0.8	9

#	ARTICLE	IF	CITATIONS
422	Real-Time Control of an Exoskeleton Hand Robot with Myoelectric Pattern Recognition. International Journal of Neural Systems, 2017, 27, 1750009.	3.2	56
423	On the use of 3D printing technology towards the development of a low-cost robotic prosthetic arm. , 2017, , .		17
424	Transfer learning for sEMG hand gestures recognition using convolutional neural networks. , 2017, , .		107
425	Abstract myoelectric control with EMG drive estimated using linear, kurtosis and Bayesian filtering. , 2017, , .		10
426	The effect of myoelectric prosthesis control strategies and feedback level on adaptation rate for a target acquisition task. , 2017, 2017, 200-204.		19
427	Evaluating the performance of Kalman filter on elbow joint angle prediction based on electromyography. International Journal of Precision Engineering and Manufacturing, 2017, 18, 1739-1748.	1.1	23
428	EMG based neural network and admittance control of an active wrist orthosis. Journal of Mechanical Science and Technology, 2017, 31, 6093-6106.	0.7	10
429	Navigating features: a topologically informed chart of electromyographic features space. Journal of the Royal Society Interface, 2017, 14, 20170734.	1.5	55
430	Upper-limb prosthetic control using wearable multichannel mechanomyography. , 2017, 2017, 1293-1298.		35
431	EMG based classification of hand gestures using PCA and ANFIS. , 2017, , .		7
432	Speech recognition using facial sEMG. , 2017, , .		6
433	Myoelectric control systems for hand rehabilitation device: A review. , 2017, , .		13
434	Towards single trial decoding of cortical-muscular activities. , 2017, , .		0
435	Multi-postural myoelectric control of 3D-printed transradial prosthesis. , 2017, , .		0
436	sEMG-based continuous hand gesture recognition using GMM-HMM and threshold model. , 2017, , .		13
437	Estimation of elbow motion intension under varing weight in lifting movement using an EMG-Angle neural network model. , 2017, , .		7
438	Concurrent surface electromyography and force myography classification during times of prosthetic socket shift and user fatigue. Journal of Rehabilitation and Assistive Technologies Engineering, 2017, 4, 205566831770873.	0.6	9
439	Conductive silicon based sEMG sensor for myoelectric control of prosthetic hands: Structure design. , 2017, , .		5

#	ARTICLE	IF	CITATIONS
440	Recognition of locomotion patterns based on BP neural network during different walking speeds. , 2017, , .		5
441	Attenuating the impact of limb position on surface EMG pattern recognition using a mixed-LDA classifier. , 2017, , .		19
442	Distributed Sensing and Stimulation Systems for Sense of Touch Restoration in Prosthetics. , 2017, , .		11
443	Pattern-based grasping force estimation from surface electromyography. , 2017, , .		4
444	Basic hand action classification based on surface EMG using autoregressive reflection coefficient. , 2017, , .		8
445	Classification of hand opening/closing and fingers by using two channel surface EMG signal. , 2017, , .		1
446	Hand movement recognition based on singular value decomposition of surface EMG signal. , 2017, , .		10
447	Preliminary results toward a naturally controlled multi-synergistic prosthetic hand. , 2017, 2017, 1356-1363.		13
448	Classifying continuous hand grips and movements using myoelectric and accelerometer signals. , 2017, , .		1
449	EMG-Controlled Prosthetic Hand with Fuzzy Logic Classification Algorithm. , 2017, , .		2
450	Development of an IoT-Based Prosthetic Control System. Journal of Robotics and Mechatronics, 2017, 29, 1049-1056.	0.5	13
451	A Novel Spatial Feature for the Identification of Motor Tasks Using High-Density Electromyography. Sensors, 2017, 17, 1597.	2.1	26
452	Improving the Robustness of Electromyogram-Pattern Recognition for Prosthetic Control by a Postprocessing Strategy. Frontiers in Neurorobotics, 2017, 11, 51.	1.6	24
453	Performance and Usability of Various Robotic Arm Control Modes from Human Force Signals. Frontiers in Neurorobotics, 2017, 11, 55.	1.6	5
454	Advanced Myoelectric Control for Robotic Hand-Assisted Training: Outcome from a Stroke Patient. Frontiers in Neurology, 2017, 8, 107.	1.1	34
455	sEMG Sensor Using Polypyrrole-Coated Nonwoven Fabric Sheet for Practical Control of Prosthetic Hand. Frontiers in Neuroscience, 2017, 11, 33.	1.4	30
456	A Novel Hybrid Model for Drawing Trace Reconstruction from Multichannel Surface Electromyographic Activity. Frontiers in Neuroscience, 2017, 11, 61.	1.4	6
457	An algorithm for control of prosthetic foot by gait characteristics. , 2017, , .		4

#	ARTICLE	IF	CITATIONS
458	Multi-finger myoelectric signals for controlling a virtual robotic prosthetic hand. International Journal of Modelling, Identification and Control, 2017, 27, 181.	0.2	5
459	Hand Functions of Myoelectric and 3D-Printed Pressure-Sensored Prosthetics: A Comparative Study. Annals of Rehabilitation Medicine, 2017, 41, 875.	0.6	20
460	EMG-Controlled Human-Robot Interfaces. , 2017, , 75-109.		2
461	An sEMG-Based Human-Robot Interface for Robotic Hands Using Machine Learning and Synergies. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1149-1158.	1.4	73
462	Portable EMG Data Acquisition Module for Upper Limb Prosthesis Application. IEEE Sensors Journal, 2018, 18, 3436-3443.	2.4	68
463	The design of a hemiplegic upper limb rehabilitation training system based on surface EMG signals. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2018, 12, JAMDSM0031-JAMDSM0031.	0.3	7
464	Development of Home Intelligent Fall Detection IoT System Based on Feedback Optical Flow Convolutional Neural Network. IEEE Access, 2018, 6, 6048-6057.	2.6	55
465	Comparison of Bilateral and Unilateral Contractions and Limb Dominance on Pattern Classification Accuracy for Prosthesis Control. Journal of Prosthetics and Orthotics, 2018, 30, 15-19.	0.2	1
466	A Review on Upper-Limb Myoelectric Prosthetic Control. IETE Journal of Research, 2018, 64, 740-752.	1.8	41
467	Online mapping of EMG signals into kinematics by autoencoding. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 21.	2.4	68
468	EMG-Torque Dynamics Change With Contraction Bandwidth. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 807-816.	2.7	7
469	A Real-Time Research Platform for Intent Pattern Recognition: Implementation, Validation and Application. Lecture Notes in Computer Science, 2018, , 106-117.	1.0	0
470	Comparison of contact interface factors for surface electromyography control wearable device. Advances in Mechanical Engineering, 2018, 10, 168781401876724.	0.8	2
471	Anomaly Detection of Electromyographic Signals. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 770-779.	2.7	12
472	Hand Gesture Recognition Based Omnidirectional Wheelchair Control Using IMU and EMG Sensors. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 91, 529-541.	2.0	87
473	Dimensionality effect of myoelectric-controlled interface on the coordination of agonist and antagonist muscles during voluntary isometric elbow flexion and extension. Biomedical Signal Processing and Control, 2018, 40, 149-155.	3.5	0
474	Continuous estimation of joint angle from electromyography using multiple time-delayed features and random forests. Biomedical Signal Processing and Control, 2018, 39, 303-311.	3.5	33
475	Impact of commercial sensors in human computer interaction: a review. Journal of Ambient Intelligence and Humanized Computing, 2018, 9, 1479-1496.	3.3	20

#	ARTICLE	IF	CITATIONS
476	A bionic hand controlled by hand gesture recognition based on surface EMG signals: A preliminary study. <i>Biocybernetics and Biomedical Engineering</i> , 2018, 38, 126-135.	3.3	124
477	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
478	Fabrication, Structure Characterization, and Performance Testing of Piezoelectret-Film Sensors for Recording Body Motion. <i>IEEE Sensors Journal</i> , 2018, 18, 401-412.	2.4	41
479	Real time monitoring of muscle fatigue and muscle disorder of biceps brachii using Surface Electromyography (sEMG). , 2018, , .		5
480	A sEMG-based Hand Function Rehabilitation System for Stroke Patients. , 2018, , .		4
481	Effects of SNR on removing ECG noise from EMG signal using DSWT. , 2018, , .		2
482	On Muscle Selection for EMG Based Decoding of Dexterous, In-Hand Manipulation Motions. , 2018, 2018, 1672-1675.		8
483	EMG dataset augmentation approaches for improving the multi-DOF wrist movement regression accuracy and robustness. , 2018, , .		12
484	Classification of Hand Movements by Surface Myoelectric Signal Using Artificial-Spiking Neural Network Model. , 2018, , .		5
485	Real-Time Classification of Multi-Channel Forearm EMG to Recognize Hand Movements using Effective Feature Combination and LDA Classifier. <i>Bangladesh Journal of Medical Physics</i> , 2018, 10, 25-39.	0.2	6
486	Dynamic Gesture Recognition Based on LSTM-CNN. , 2018, , .		42
487	Closed-Loop System for Myoelectric Hand Control Based on Electrotactile Stimulation. , 2018, , .		8
488	Channel selection in multi-channel surface electromyogram based hand activity classifier. , 2018, , .		4
489	Myoelectric control of upper limb prostheses using linear discriminant analysis and multilayer perceptron neural network with back propagation algorithm. <i>International Journal of Computational Systems Engineering</i> , 2018, 4, 120.	0.2	0
490	Muscle Activity Distribution Features Extracted from HD sEMG to Perform Forearm Pattern Recognition. , 2018, , .		5
491	Upper Limb Elbow Joint Angle Estimation Based on Electromyography Using Artificial Neural Network. , 2018, , .		1
492	Feasibility of proportional EMG control for a hand exoskeleton: A Fitts's™ Law approach. <i>IFAC-PapersOnLine</i> , 2018, 51, 214-219.	0.5	2
493	Performance Analysis of the Windowing Technique on Elbow Joint Angle Estimation Using Electromyography Signal. <i>Journal of Physics: Conference Series</i> , 2018, 1108, 012004.	0.3	1

#	ARTICLE	IF	CITATIONS
494	An Investigation of Temporally Inspired Time Domain Features for Electromyographic Pattern Recognition. , 2018, 2018, 5236-5240.		10
495	Compact Deep Neural Networks for Computationally Efficient Gesture Classification From Electromyography Signals. , 2018, , .		11
496	Time Delay Neural Network to Estimate the Elbow Joint Angle Based on Electromyography. , 2018, , .		0
497	sEMG-Based Drawing Trace Reconstruction: A Novel Hybrid Algorithm Fusing Gene Expression Programming into Kalman Filter. Sensors, 2018, 18, 3296.	2.1	0
498	Effectiveness of Surface Electromyography in Pattern Classification for Upper Limb Amputees. , 2018, , .		5
499	Using Antonyan Vardan Transform and Extreme Learning Machines for Accurate sEMG Signal Classification. , 2018, 2018, 5224-5227.		6
500	Impact of Load Variation on the Accuracy of Gait Recognition from Surface EMG Signals. Applied Sciences (Switzerland), 2018, 8, 1462.	1.3	13
501	Adjacent Features for High-Density EMG Pattern Recognition. , 2018, 2018, 5978-5981.		3
502	Trajectory Tracking Methodology using sEMG Signals for Tracking Finger Motions. , 2018, , .		0
503	Embroidered Electrodes for Control of Affordable Myoelectric Prostheses. , 2018, , .		12
504	Evaluating the linear regression of Kalman filter model on elbow joint angle estimation using electromyography signal. AIP Conference Proceedings, 2018, , .	0.3	4
505	EMG Based Decoding of Object Motion in Dexterous, In-Hand Manipulation Tasks. , 2018, , .		12
506	Classification of Gait Phases Based on Bilateral EMG Data Using Support Vector Machines. , 2018, , .		30
507	Improved Gesture Recognition Using Deep Neural Networks on sEMG. , 2018, , .		11
508	A novel attention-based hybrid CNN-RNN architecture for sEMG-based gesture recognition. PLoS ONE, 2018, 13, e0206049.	1.1	246
509	Activity Detection from Wearable Electromyogram Sensors using Hidden Markov Model. , 2018, , .		1
510	Surface electromyography segmentation and feature extraction for ingestive behavior recognition in ruminants. Computers and Electronics in Agriculture, 2018, 153, 325-333.	3.7	12
511	Real-time, simultaneous myoelectric control using a convolutional neural network. PLoS ONE, 2018, 13, e0203835.	1.1	60

#	ARTICLE	IF	CITATIONS
512	sEMG-Based Motion Recognition. , 2018, , 67-104.		1
513	Control of a robotic knee exoskeleton for assistance and rehabilitation based on motion intention from sEMG. Research on Biomedical Engineering, 2018, 34, 198-210.	1.5	29
514	Preliminary study on analysis of sEMG-based features for force classification. , 2018, , .		0
515	Divide-and-conquer muscle synergies: A new feature space decomposition approach for simultaneous multifunction myoelectric control. Biomedical Signal Processing and Control, 2018, 44, 209-220.	3.5	7
516	A feature extraction issue for myoelectric control based on wearable EMG sensors. , 2018, , .		40
517	Evaluating Internal Model Strength and Performance of Myoelectric Prosthesis Control Strategies. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1046-1055.	2.7	41
518	Vector Autoregressive Hierarchical Hidden Markov Models for Extracting Finger Movements Using Multichannel Surface EMG Signals. Complexity, 2018, 2018, 1-12.	0.9	19
519	A hybrid auricular control system: direct, simultaneous, and proportional myoelectric control of two degrees of freedom in prosthetic hands. Journal of Neural Engineering, 2018, 15, 056028.	1.8	12
520	Classification of Transient Myoelectric Signals for the Control of Multi-Grasp Hand Prostheses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1756-1764.	2.7	44
521	Implementation of a Surface Electromyography-Based Upper Extremity Exoskeleton Controller Using Learning from Demonstration. Sensors, 2018, 18, 467.	2.1	20
522	Continuous Estimation Prediction of Knee Joint Angles Using Fusion of Electromyographic and Inertial Sensors for Active Transfemoral Leg Prostheses. Advances in Data Science and Adaptive Analysis, 2018, 10, 1840008.	0.2	3
523	Human-Inspired Reflex to Autonomously Prevent Slip of Grasped Objects Rotated with a Prosthetic Hand. Journal of Healthcare Engineering, 2018, 2018, 1-11.	1.1	9
524	Feature Extraction and Selection for Myoelectric Control Based on Wearable EMG Sensors. Sensors, 2018, 18, 1615.	2.1	206
525	Characterization of the coordination of agonist and antagonist muscles among stroke patients, healthy late middle-aged and young controls using a myoelectric-controlled interface. Journal of Neural Engineering, 2018, 15, 056015.	1.8	5
526	Multivariate empirical mode decomposition based EMG signal analysis for smart prosthesis. , 2018, , .		0
527	Wearing-independent hand gesture recognition method based on EMG armband. Personal and Ubiquitous Computing, 2018, 22, 511-524.	1.9	34
528	Analysis and Comparison of Features and Algorithms to Classify Shoulder Movements From sEMG Signals. IEEE Sensors Journal, 2018, 18, 3714-3721.	2.4	21
529	Muscle fatigue compensation of the electromyography signal for elbow joint angle estimation using adaptive feature. Computers and Electrical Engineering, 2018, 71, 284-293.	3.0	34

#	ARTICLE	IF	CITATIONS
530	EMG and IMU based real-time HCI using dynamic hand gestures for a multiple-DoF robot arm. Journal of Intelligent and Fuzzy Systems, 2018, 35, 861-876.	0.8	12
531	Position-independent gesture recognition using sEMG signals via canonical correlation analysis. Computers in Biology and Medicine, 2018, 103, 44-54.	3.9	34
532	Knit Band Sensor for Myoelectric Control of Surface EMG-Based Prosthetic Hand. IEEE Sensors Journal, 2018, 18, 8578-8586.	2.4	60
533	Finger language recognition based on ensemble artificial neural network learning using armband EMG sensors. Technology and Health Care, 2018, 26, 249-258.	0.5	21
534	Surface EMG based classification of basic hand movements using rotation forest. , 2018, , .		13
535	Simultaneous control of multiple functions of bionic hand prostheses: Performance and robustness in end users. Science Robotics, 2018, 3, .	9.9	158
536	Evaluation of feature extraction techniques and classifiers for finger movement recognition using surface electromyography signal. Medical and Biological Engineering and Computing, 2018, 56, 2259-2271.	1.6	38
537	Myoelectric Pattern Recognition for Controlling a Robotic Hand: A Feasibility Study in Stroke. IEEE Transactions on Biomedical Engineering, 2019, 66, 365-372.	2.5	64
538	Identification of Gesture Based on Combination of Raw sEMG and sEMG Envelope Using Supervised Learning and Univariate Feature Selection. Journal of Bionic Engineering, 2019, 16, 647-662.	2.7	16
539	A low-cost, wearable sEMG sensor for upper limb prosthetic application. Journal of Medical Engineering and Technology, 2019, 43, 235-247.	0.8	20
540	A hand gesture recognition using single-channel electrodes based on artificial neural network. , 2019, , .		4
541	Myoelectric activity imaging and decoding with multichannel surface EMG for enhanced everyday life applicability. , 2019, , .		0
542	Video-based Prediction of Hand-grasp Preshaping with Application to Prosthesis Control. , 2019, , .		14
543	A Comparative Study of Computational Methods for Compressed Sensing Reconstruction of EMG Signal. Sensors, 2019, 19, 3531.	2.1	10
544	VMD-based denoising methods for surface electromyography signals. Journal of Neural Engineering, 2019, 16, 056017.	1.8	25
545	Dynamic time warping for reducing the effect of force variation on myoelectric control of hand prostheses. Journal of Electromyography and Kinesiology, 2019, 48, 152-160.	0.7	7
546	Decoding Simultaneous Multi-DOF Wrist Movements From Raw EMG Signals Using a Convolutional Neural Network. IEEE Transactions on Human-Machine Systems, 2019, 49, 411-420.	2.5	52
547	A Biomimetic Soft Lens Controlled by Electrooculographic Signal. Advanced Functional Materials, 2019, 29, 1903762.	7.8	50

#	ARTICLE	IF	CITATIONS
548	Smart Home. , 2019, , .		4
549	A myoelectric prosthetic hand with muscle synergyâ€‘based motion determination and impedance modelâ€‘based biomimetic control. Science Robotics, 2019, 4, .	9.9	110
550	Gesture recognition based on ConvLSTM-attention implementation of small data sEMG signals. , 2019, , .		6
551	REAL-TIME EMG ACQUISITION AND FEATURE EXTRACTION FOR REHABILITATION AND PROSTHESIS. Biomedical Engineering - Applications, Basis and Communications, 2019, 31, 1950037.	0.3	5
552	Evaluate the Medial Muscle Strength by Kick Training between the Standing and Sitting Postures. Applied Sciences (Switzerland), 2019, 9, 718.	1.3	2
553	Effect of VMD decomposition of soleus muscle EMG in SVM classification. , 2019, , .		2
554	Stationary Wavelet Processing and Data Imputing in Myoelectric Pattern Recognition on a Low-Cost Embedded System. IEEE Transactions on Medical Robotics and Bionics, 2019, 1, 256-266.	2.1	5
555	Support Vector Machine-Based EMG Signal Classification Techniques: A Review. Applied Sciences (Switzerland), 2019, 9, 4402.	1.3	95
556	Automated arrhythmia detection using novel hexadecimal local pattern and multilevel wavelet transform with ECG signals. Knowledge-Based Systems, 2019, 186, 104923.	4.0	164
557	Surface-Property Recognition With Force Sensors for Stable Walking of Humanoid Robot. IEEE Access, 2019, 7, 146443-146456.	2.6	9
558	Pattern Recognition-Based Real Time Myoelectric System for Robotic Hand Control. , 2019, , .		3
559	A compact-sized surface EMG sensor for myoelectric hand prosthesis. Biomedical Engineering Letters, 2019, 9, 467-479.	2.1	25
560	Sliding Window Nonnegative Matrix Factorization (SW-NMF) for Robustness Low-Density Myoelectric Signals Decoding Against Electrodes Shift. , 2019, , .		0
561	A Learning Scheme for EMG Based Decoding of Dexterous, In-Hand Manipulation Motions. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 2205-2215.	2.7	36
562	Feature selection tree for automated machinery fault diagnosis. MATEC Web of Conferences, 2019, 255, 02004.	0.1	0
563	Shared humanâ€‘robot proportional control of a dexterous myoelectric prosthesis. Nature Machine Intelligence, 2019, 1, 400-411.	8.3	91
564	Development of an sEMG sensor composed of two-layered conductive silicone with different carbon concentrations. Scientific Reports, 2019, 9, 13996.	1.6	15
565	Inferring Static Hand Poses from a Low-Cost Non-Intrusive sEMG Sensor. Sensors, 2019, 19, 371.	2.1	37

#	ARTICLE	IF	CITATIONS
566	Adaptive Auto-Regressive Proportional Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 314-322.	2.7	25
567	Pattern recognition based on HD-sEMG spatial features extraction for an efficient proportional control of a robotic arm. Biomedical Signal Processing and Control, 2019, 53, 101550.	3.5	24
568	Electromyogram-controlled assistive devices. , 2019, , 285-311.		5
569	A Low-Cost, Wireless, 3-D-Printed Custom Armband for sEMG Hand Gesture Recognition. Sensors, 2019, 19, 2811.	2.1	51
571	Fuzzy Real-Time Multi-objective Optimization of a Prosthesis Test Robot Control System. Studies in Systems, Decision and Control, 2019, , 165-185.	0.8	6
572	Finger movements recognition using minimally redundant features of wavelet denoised EMG. Health and Technology, 2019, 9, 579-593.	2.1	13
573	Wireless sEMG-based identification in a virtual reality environment. Microelectronics Reliability, 2019, 98, 78-85.	0.9	14
574	Evaluation of Optical Myography Sensor as Predictor of Hand Postures. IEEE Sensors Journal, 2019, 19, 5299-5306.	2.4	10
575	sEMG-angle estimation using feature engineering techniques for least square support vector machine. Technology and Health Care, 2019, 27, 31-46.	0.5	3
576	Optimization of Semiautomated Calibration Algorithm of Multichannel Electrotactile Feedback for Myoelectric Hand Prosthesis. Applied Bionics and Biomechanics, 2019, 2019, 1-9.	0.5	14
577	Force classification using surface electromyography from various object lengths and wrist postures. Signal, Image and Video Processing, 2019, 13, 1183-1190.	1.7	9
578	Offline and online myoelectric pattern recognition analysis and real-time control of a robotic hand after spinal cord injury. Journal of Neural Engineering, 2019, 16, 036018.	1.8	24
579	Regression convolutional neural network for improved simultaneous EMG control. Journal of Neural Engineering, 2019, 16, 036015.	1.8	110
580	Effects of Proprioception and Visual Focus of Attention on Surface Electromyography Proportional Control. Applied Sciences (Switzerland), 2019, 9, 730.	1.3	1
582	Detection of movement onset using EMG signals for upper-limb exoskeletons in reaching tasks. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 45.	2.4	84
583	A quantitative taxonomy of human hand grasps. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 28.	2.4	47
584	A review on EMG-based motor intention prediction of continuous human upper limb motion for human-robot collaboration. Biomedical Signal Processing and Control, 2019, 51, 113-127.	3.5	236
585	Synergistic Myoelectrical Activities of Forearm Muscles Improving Robust Recognition of Multi-Fingered Gestures. Sensors, 2019, 19, 610.	2.1	18

#	ARTICLE	IF	CITATIONS
586	Pattern Classification and Its Applications to Control of Biomechatronic Systems. , 2019, , 139-154.		2
587	Robust feature sets for contraction level invariant control of upper limb myoelectric prosthesis. Biomedical Signal Processing and Control, 2019, 51, 90-96.	3.5	11
588	A thin-film multichannel electrode for muscle recording and stimulation in neuroprosthetics applications. Journal of Neural Engineering, 2019, 16, 026035.	1.8	26
589	Motion Estimation From Surface Electromyogram Using Adaboost Regression and Average Feature Values. IEEE Access, 2019, 7, 13121-13134.	2.6	39
590	Deep Learning for Electromyographic Hand Gesture Signal Classification Using Transfer Learning. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 760-771.	2.7	440
591	Surface-Electromyography-Based Gesture Recognition by Multi-View Deep Learning. IEEE Transactions on Biomedical Engineering, 2019, 66, 2964-2973.	2.5	148
593	EMG control of a 3D printed myo electric prosthetic hand. IOP Conference Series: Materials Science and Engineering, 2019, 635, 012022.	0.3	3
594	A Low-Cost Arm Robotic Platform based on Myoelectric Control for Rehabilitation Engineering. , 2019, , .		4
595	Evaluating the Performance of Neural Network and Kalman Filter Based Linear Model on Classification of Hand EMG Signals. , 2019, , .		1
596	Convolutional Neural Network with Data Augmentation for Robust Myoelectric Control. , 2019, , .		1
597	Compact electrotactile stimulation and EMG acquisition system with embedded blanking of stimulation artifacts. , 2019, , .		3
598	Development of an Electromyography-Based Hand Gesture Recognition System for Upper Extremity Prostheses. , 2019, , .		0
599	Spatially Filtered Low-Density EMG and Time-Domain Descriptors Improves Hand Movement Recognition. , 2019, 2019, 2671-2674.		3
600	Visualized Evidences for Detecting Novelty in Myoelectric Pattern Recognition using 3D Convolutional Neural Networks. , 2019, 2019, 2641-2644.		3
601	DFNN-based Gesture Recognition with the Shift and Damage of the HD-sEMG Electrodes. , 2019, , .		2
602	3D-CLDNN: An Effective Architecture on Deep Neural Network for sEMG-Based Lower Limb Abnormal Recognition. , 2019, , .		3
603	Research on Power-Assisted Strategy and Device Based on Muscle Synergy. , 2019, , .		2
604	Deep learning-based classification using Cumulants and Bispectrum of EMG signals. IEEE Latin America Transactions, 2019, 17, 1946-1953.	1.2	5

#	ARTICLE	IF	CITATIONS
605	Finger Movement Detection Based on Multiple EMG Positions. , 2019, , .		6
606	Finger Movement Recognition based on Muscle Synergy using Electromyogram. , 2019, , .		0
607	Reference position estimation for prosthetic elbow and wrist using EMG signals. IOP Conference Series: Materials Science and Engineering, 2019, 635, 012031.	0.3	1
608	Improving bimanual interaction with a prosthesis using semi-autonomous control. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 140.	2.4	20
609	Myoelectric Control for Upper Limb Prostheses. Electronics (Switzerland), 2019, 8, 1244.	1.8	27
610	Learn the Temporal-Spatial Feature of sEMG via Dual-Flow Network. International Journal of Humanoid Robotics, 2019, 16, 1941004.	0.6	12
611	Intent Prediction of Multi-axial Ankle Motion Using Limited EMG Signals. Frontiers in Bioengineering and Biotechnology, 2019, 7, 335.	2.0	15
612	A Determination Method for Gait Event Based on Acceleration Sensors. Sensors, 2019, 19, 5499.	2.1	14
613	Simulated robotic device malfunctions resembling malicious cyberattacks impact human perception of trust, satisfaction, and frustration. International Journal of Advanced Robotic Systems, 2019, 16, 172988141987496.	1.3	4
614	Smoothed arg max Extreme Learning Machine: An Alternative to Avoid Classification Ripple in sEMG Signals. , 2019, 2019, 6603-6606.		1
615	EMG Pattern Recognition Using Convolutional Neural Network with Different Scale Signal/Spectra Input. International Journal of Humanoid Robotics, 2019, 16, 1950013.	0.6	17
616	Finger Movement Regression with Myoelectric Signal and Deep Neural Network. , 2019, , .		3
617	sEMG Based Gait Phase Recognition for Children with Spastic Cerebral Palsy. Annals of Biomedical Engineering, 2019, 47, 223-230.	1.3	11
618	Electromyography-controlled car: A proof of concept based on surface electromyography, Extreme Learning Machines and low-cost open hardware. Computers and Electrical Engineering, 2019, 73, 167-179.	3.0	21
619	Statistical Analysis of EMG-Based Features for Different Hand Movements. Smart Innovation, Systems and Technologies, 2019, , 71-79.	0.5	6
620	Intelligent EMG Pattern Recognition Control Method for Upper-Limb Multifunctional Prostheses: Advances, Current Challenges, and Future Prospects. IEEE Access, 2019, 7, 10150-10165.	2.6	110
621	Effects of vibrotactile feedback and grasp interface compliance on perception and control of a sensorized myoelectric hand. PLoS ONE, 2019, 14, e0210956.	1.1	29
622	Gradient-Based Multi-Objective Feature Selection for Gait Mode Recognition of Transfemoral Amputees. Sensors, 2019, 19, 253.	2.1	17

#	ARTICLE	IF	CITATIONS
623	sEMG-based shoulder-elbow composite motion pattern recognition and control methods for upper limb rehabilitation robot. <i>Assembly Automation</i> , 2019, 39, 394-400.	1.0	9
624	Wrist and Finger Gesture Recognition With Single-Element Ultrasound Signals: A Comparison With Single-Channel Surface Electromyogram. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1277-1284.	2.5	51
625	Future of microfluidics in research and in the market. , 2019, , 425-465.		12
626	Automated classification of hand movements using tunable-Q wavelet transform based filter-bank with surface electromyogram signals. <i>Future Generation Computer Systems</i> , 2019, 93, 96-110.	4.9	45
627	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
628	The recognition of grasping force using LDA. <i>Biomedical Signal Processing and Control</i> , 2019, 47, 393-400.	3.5	26
629	A new hand finger movementsâ€™ classification system based on bicoherence analysis of two-channel surface EMG signals. <i>Neural Computing and Applications</i> , 2019, 31, 3327-3337.	3.2	14
630	Realistic Facial Expression Reconstruction for VR HMD Users. <i>IEEE Transactions on Multimedia</i> , 2020, 22, 730-743.	5.2	50
631	Development of an Affordable Myoelectric Hand for Transradial Amputees. <i>International Journal of Biomedical and Clinical Engineering</i> , 2020, 9, 1-15.	0.2	8
632	Human-robot cooperative control based on sEMG for the upper limb exoskeleton robot. <i>Robotics and Autonomous Systems</i> , 2020, 125, 103350.	3.0	34
633	Selection of Features and Classifiers for EMG-EEG-Based Upper Limb Assistive Devicesâ€™ A Review. <i>IEEE Reviews in Biomedical Engineering</i> , 2020, 13, 248-260.	13.1	38
634	A Low-Cost End-to-End sEMG-Based Gait Sub-Phase Recognition System. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 267-276.	2.7	56
635	Training-Free Bayesian Self-Adaptive Classification for sEMG Pattern Recognition Including Motion Transition. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 1775-1786.	2.5	15
636	A Review on Surface Electromyography-Controlled Hand Robotic Devices Used for Rehabilitation and Assistance in Activities of Daily Living. <i>Journal of Prosthetics and Orthotics</i> , 2020, 32, 3-13.	0.2	20
637	A Novel Postprocessing Method for Robust Myoelectric Pattern-Recognition Control Through Movement Pattern Transition Detection. <i>IEEE Transactions on Human-Machine Systems</i> , 2020, 50, 32-41.	2.5	13
638	A database of multi-channel intramuscular electromyogram signals during isometric hand muscles contractions. <i>Scientific Data</i> , 2020, 7, 10.	2.4	16
639	Electromyogram (EMG) based fingers movement recognition using sparse filtering of wavelet packet coefficients. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020, 45, 1.	0.8	19
640	Adaptive Calibration of Electrode Array Shifts Enables Robust Myoelectric Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 1-1.	2.5	24

#	ARTICLE	IF	CITATIONS
641	Application of PSO-RBF neural network in gesture recognition of continuous surface EMG signals. Journal of Intelligent and Fuzzy Systems, 2020, 38, 2469-2480.	0.8	44
642	Simultaneous estimation of 2-DOF wrist movements based on constrained non-negative matrix factorization and Hadamard product. Biomedical Signal Processing and Control, 2020, 56, 101729.	3.5	10
643	Predicting the occurrence of wrist tremor based on electromyography using a hidden Markov model and entropy based learning algorithm. Biomedical Signal Processing and Control, 2020, 57, 101739.	3.5	13
644	A Multi-Window Majority Voting Strategy to Improve Hand Gesture Recognition Accuracies Using Electromyography Signal. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 427-436.	2.7	43
645	Closed-Loop Multi-Amplitude Control for Robust and Dexterous Performance of Myoelectric Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 498-507.	2.7	12
646	Force-Sensor-Based Surface Recognition With Surface-Property-Dependent Walking-Speed Adjustment of Humanoid Robot. IEEE Access, 2020, 8, 169640-169651.	2.6	5
647	High-Density Electromyography Based Control of Robotic Devices: On the Execution of Dexterous Manipulation Tasks. , 2020, , .		5
648	Unsupervised Domain Adversarial Self-Calibration for Electromyography-Based Gesture Recognition. IEEE Access, 2020, 8, 177941-177955.	2.6	35
649	Shoulder muscle activation pattern recognition based on sEMG and machine learning algorithms. Computer Methods and Programs in Biomedicine, 2020, 197, 105721.	2.6	28
650	Force myography controlled multifunctional hand prosthesis for upper-limb amputees. Biomedical Signal Processing and Control, 2020, 62, 102122.	3.5	28
651	Review of Clustering Techniques in Control System. Procedia Computer Science, 2020, 173, 272-280.	1.2	20
652	A review of the key technologies for sEMG-based human-robot interaction systems. Biomedical Signal Processing and Control, 2020, 62, 102074.	3.5	100
653	An sEMG-Controlled 3D Game for Rehabilitation Therapies: Real-Time Time Hand Gesture Recognition Using Deep Learning Techniques. Sensors, 2020, 20, 6451.	2.1	46
654	Defining the Features of EMG Signals on the Forearm of the Hand Using SVM, RF, k-NN Classification Algorithms. , 2020, , .		10
655	Measurement of muscle contraction timing for prosthesis control: a comparison between electromyography and force-myography. , 2020, , .		12
656	Recurrent Neural Network for electromyographic gesture recognition in transhumeral amputees. Applied Soft Computing Journal, 2020, 96, 106616.	4.1	15
657	Compliant underwater manipulator with integrated tactile sensor for nonlinear force feedback control of an SMA actuation system. Sensors and Actuators A: Physical, 2020, 315, 112221.	2.0	16
658	Improved High-Density Myoelectric Pattern Recognition Control Against Electrode Shift Using Data Augmentation and Dilated Convolutional Neural Network. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2637-2646.	2.7	35

#	ARTICLE	IF	CITATIONS
659	Detecting Human Motion Intention during pHRI Using Artificial Neural Networks Trained by EMG Signals. , 2020, , .		10
660	Entropy and Clustering Information Applied to sEMG Classification. , 2020, 2020, 678-681.		2
661	A real-time stable-control gait switching strategy for lower-limb rehabilitation exoskeleton. PLoS ONE, 2020, 15, e0238247.	1.1	4
662	Online Grasp Force Estimation From the Transient EMG. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2333-2341.	2.7	21
663	Pattern Recognition in Myoelectric Signals Using Deep Learning, Features Engineering, and a Graphics Processing Unit. IEEE Access, 2020, 8, 208952-208960.	2.6	2
664	The realization of robotic neurorehabilitation in clinical: use of computational intelligence and future prospects analysis. Expert Review of Medical Devices, 2020, 17, 1311-1322.	1.4	9
665	EMG Characterization and Processing in Production Engineering. Materials, 2020, 13, 5815.	1.3	13
666	A-mode Ultrasound Driven Sensor Fusion for Hand Gesture Recognition. , 2020, , .		9
667	Real-Time Hand Gesture Recognition Using Surface Electromyography and Machine Learning: A Systematic Literature Review. Sensors, 2020, 20, 2467.	2.1	119
668	Intent Prediction Based on Biomechanical Coordination of EMG and Vision-Filtered Gaze for End-Point Control of an Arm Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1471-1480.	2.7	30
669	Multi-object intergroup gesture recognition combined with fusion feature and KNN algorithm. Journal of Intelligent and Fuzzy Systems, 2020, 38, 2725-2735.	0.8	50
670	Neuromuscular Control of the Agonist–Antagonist Muscle Coordination Affected by Visual Dimension: An EMG-fNIRS Study. IEEE Access, 2020, 8, 100768-100777.	2.6	4
671	Donning/Doffing and Arm Positioning Influence in Upper Limb Adaptive Prostheses Control. Applied Sciences (Switzerland), 2020, 10, 2892.	1.3	1
672	Are armband sEMG devices dense enough for long-term use?—Sensor placement shifts cause significant reduction in recognition accuracy. Biomedical Signal Processing and Control, 2020, 60, 101981.	3.5	28
673	An Improved Performance of Deep Learning Based on Convolution Neural Network to Classify the Hand Motion by Evaluating Hyper Parameter. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1678-1688.	2.7	45
674	A low-cost system to control prehension force of a custom-made myoelectric hand prosthesis. Research on Biomedical Engineering, 2020, 36, 237-247.	1.5	12
675	Longitudinal Case Study of Regression-Based Hand Prosthesis Control in Daily Life. Frontiers in Neuroscience, 2020, 14, 600.	1.4	77
676	Current Trends and Confounding Factors in Myoelectric Control: Limb Position and Contraction Intensity. Sensors, 2020, 20, 1613.	2.1	73

#	ARTICLE	IF	CITATIONS
677	Interpreting Deep Learning Features for Myoelectric Control: A Comparison With Handcrafted Features. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 158.	2.0	65
678	Cross-Domain MLP and CNN Transfer Learning for Biological Signal Processing: EEG and EMG. <i>IEEE Access</i> , 2020, 8, 54789-54801.	2.6	59
679	Accounting for SNR in an Algorithm Using Wavelet Transform to Remove ECG Interference from EMG Signals. <i>Fluctuation and Noise Letters</i> , 2020, 19, 2050001.	1.0	1
680	Classification of electromyographic hand gesture signals using machine learning techniques. <i>Neurocomputing</i> , 2020, 401, 236-248.	3.5	45
681	Real-Time Recognition of Facial Expressions Using Facial Electromyograms Recorded Around the Eyes for Social Virtual Reality Applications. <i>IEEE Access</i> , 2020, 8, 62065-62075.	2.6	23
682	Predicting manual wheelchair initiation movement with EMG activity during over ground propulsion. <i>Journal of Spinal Cord Medicine</i> , 2020, , 1-8.	0.7	1
683	Low-density surface electromyographic patterns under electrode shift: Characterization and NMF-based classification. <i>Biomedical Signal Processing and Control</i> , 2020, 59, 101890.	3.5	6
684	Grasp force estimation from the transient EMG using high-density surface recordings. <i>Journal of Neural Engineering</i> , 2020, 17, 016052.	1.8	32
685	Hand Gesture Recognition Using Compact CNN via Surface Electromyography Signals. <i>Sensors</i> , 2020, 20, 672.	2.1	121
686	Dual layer transfer learning for sEMG-based user-independent gesture recognition. <i>Personal and Ubiquitous Computing</i> , 2022, 26, 575-586.	1.9	9
687	Classification of Electromyographic Hand Gesture Signals Using Modified Fuzzy C-Means Clustering and Two-Step Machine Learning Approach. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 1428-1435.	2.7	33
688	Hand Gesture Recognition based on Surface Electromyography using Convolutional Neural Network with Transfer Learning Method. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 1292-1304.	3.9	89
689	A Wearable Hand Rehabilitation System With Soft Gloves. <i>IEEE Transactions on Industrial Informatics</i> , 2021, 17, 943-952.	7.2	93
690	A review of Hidden Markov models and Recurrent Neural Networks for event detection and localization in biomedical signals. <i>Information Fusion</i> , 2021, 69, 52-72.	11.7	27
691	Adaptive Electrode Calibration Method Based on Muscle Core Activation Regions and Its Application in Myoelectric Pattern Recognition. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 11-20.	2.7	16
692	A Transferable Adaptive Domain Adversarial Neural Network for Virtual Reality Augmented EMG-Based Gesture Recognition. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 546-555.	2.7	20
693	A Transfer Learning Model for Gesture Recognition Based on the Deep Features Extracted by CNN. <i>IEEE Transactions on Artificial Intelligence</i> , 2021, 2, 447-458.	3.4	36
694	Real-time detection and processing of electromyography signal. , 2021, , 83-109.		0

#	ARTICLE	IF	CITATIONS
695	Development of an Affordable Myoelectric Hand for Transradial Amputees. , 2021, , 352-364.		0
696	Investigation of EMG parameter for transtibial prosthetic user with flexion and extension of the knee and normal walking gait: A preliminary study. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 419-427.	1.0	6
697	A low-cost transradial prosthesis controlled by the intention of muscular contraction. Physical and Engineering Sciences in Medicine, 2021, 44, 229-241.	1.3	15
698	Embedded Electrotactile Feedback System for Hand Prostheses Using Matrix Electrode and Electronic Skin. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 912-925.	2.7	15
699	Recognizing Missing Electromyography Signal by Data Split Reorganization Strategy and Weight-Based Multiple Neural Network Voting Method. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 2070-2079.	7.2	5
700	A novel energy-motion model for continuous sEMG decoding: from muscle energy to motor pattern. Journal of Neural Engineering, 2021, 18, 016019.	1.8	4
701	Activities of daily living with bionic arm improved by combination training and latching filter in prosthesis control comparison. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 45.	2.4	15
702	Processing of myoelectric signals in a microcomputer for identification of movements intention and the cost reduction in the purchase of prosthesis in Peru. Journal of Physics: Conference Series, 2021, 1780, 012035.	0.3	1
703	Single EMG Sensor-Driven Robotic Glove Control for Reliable Augmentation of Power Grasping. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 179-189.	2.1	9
704	Classification of high knee flexion postures using EMG signals. Work, 2021, 68, 701-709.	0.6	1
705	Time-Frequency Distribution of SEMG Pattern Recognition in Reducing Limb Position Invariant. , 2021, , .		0
706	Multiuser gesture recognition using sEMG signals via canonical correlation analysis and optimal transport. Computers in Biology and Medicine, 2021, 130, 104188.	3.9	32
707	Concept, Design, Initial Tests and Prototype of Customized Upper Limb Prosthesis. Applied Sciences (Switzerland), 2021, 11, 3077.	1.3	6
708	HYBRID CLASSIFICATION STRATEGY OF EMG SIGNALS FOR ROBOTIC HAND CONTROL. Biomedical Engineering - Applications, Basis and Communications, 2022, 34, .	0.3	1
709	The effects of the number of channels and gyroscopic data on the classification performance in EMG data acquired by Myo armband. Journal of Computational Science, 2021, 51, 101348.	1.5	7
710	Surface EMG-Based Instantaneous Hand Gesture Recognition Using Convolutional Neural Network with the Transfer Learning Method. Sensors, 2021, 21, 2540.	2.1	28
711	The Optimal Adaptive-Based Neurofuzzy Control of the 3-DOF Musculoskeletal System of Human Arm in a 2D Plane. Applied Bionics and Biomechanics, 2021, 2021, 1-10.	0.5	4
712	State-of-the-Art Method in Prosthetic Hand Design: A Review. Journal of Biomimetics, Biomaterials and Biomedical Engineering, 0, 50, 15-24.	0.5	8

#	ARTICLE	IF	CITATIONS
713	LSTM Classification of Functional Grasps Using sEMG Data from Low-Cost Wearable Sensor. , 2021, , .		3
714	Gesture Recognition Using Surface Electromyography and Deep Learning for Prostheses Hand: State-of-the-Art, Challenges, and Future. <i>Frontiers in Neuroscience</i> , 2021, 15, 621885.	1.4	60
715	Hand movement recognition from sEMG signals using Fourier decomposition method. <i>Biocybernetics and Biomedical Engineering</i> , 2021, 41, 690-703.	3.3	30
716	Classification of the Angular Position During Wrist Flexion-extension Based on EMG Signals. <i>Ingenieria Y Universidad</i> , 0, 25, .	0.5	0
717	In-silico development and assessment of a Kalman filter motor decoder for prosthetic hand control. <i>Computers in Biology and Medicine</i> , 2021, 132, 104353.	3.9	3
718	A compact system for simultaneous stimulation and recording for closed-loop myoelectric control. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021, 18, 87.	2.4	16
719	Surface Electromyography and Electroencephalogram-Based Gait Phase Recognition and Correlations Between Cortical and Locomotor Muscle in the Seven Gait Phases. <i>Frontiers in Neuroscience</i> , 2021, 15, 607905.	1.4	2
720	Estimation of Joint Kinematics and Fingertip Forces using Motoneuron Firing Activities: A Preliminary Report. , 2021, , .		5
721	Classification of 41 Hand and Wrist Movements via Surface Electromyogram Using Deep Neural Network. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 548357.	2.0	12
722	Comparison of machine learning methods in sEMG signal processing for shoulder motion recognition. <i>Biomedical Signal Processing and Control</i> , 2021, 68, 102577.	3.5	20
723	An affordable transradial prosthesis based on force myography sensor. <i>Sensors and Actuators A: Physical</i> , 2021, 325, 112699.	2.0	9
724	Improving sEMG-based motion intention recognition for upper-limb amputees using transfer learning. <i>Neural Computing and Applications</i> , 2023, 35, 16101-16111.	3.2	13
726	sEMG-Based Gesture Recognition Using GRU With Strong Robustness Against Forearm Posture. , 2021, , .		5
727	Cross-Individual Gesture Recognition Based on Long Short-Term Memory Networks. <i>Scientific Programming</i> , 2021, 2021, 1-11.	0.5	4
728	Emerging ExG-based NUI Inputs in Extended Realities: A Bottom-up Survey. <i>ACM Transactions on Interactive Intelligent Systems</i> , 2021, 11, 1-49.	2.6	8
729	Hand gestures recognition from surface electromyogram signal based on self-organizing mapping and radial basis function network. <i>Biomedical Signal Processing and Control</i> , 2021, 68, 102629.	3.5	18
730	Toward Long-Term FMG Model-Based Estimation of Applied Hand Force in Dynamic Motion During Human-Robot Interactions. <i>IEEE Transactions on Human-Machine Systems</i> , 2021, 51, 310-323.	2.5	9
731	Dimensionality reduction for classification of object weight from electromyography. <i>PLoS ONE</i> , 2021, 16, e0255926.	1.1	4

#	ARTICLE	IF	CITATIONS
732	MuscleNET: mapping electromyography to kinematic and dynamic biomechanical variables by machine learning. <i>Journal of Neural Engineering</i> , 2021, 18, 0460d3.	1.8	25
733	Cognitive perturbations affect brain cortical activity and postural control: An investigation of human EEG and motion data. <i>Biomedical Signal Processing and Control</i> , 2021, 69, 102955.	3.5	0
734	Elicitation hybrid spatial features from HD-sEMG signals for robust classification of gestures in real-time. <i>Australian Journal of Electrical and Electronics Engineering</i> , 2021, 18, 249-259.	0.7	2
735	On the Utility of Bioimpedance in the Context of Myoelectric Control. <i>IEEE Sensors Journal</i> , 2021, 21, 19505-19515.	2.4	1
736	Performance enhancement of facial electromyogram-based facial-expression recognition for social virtual reality applications using linear discriminant analysis adaptation. <i>Virtual Reality</i> , 2022, 26, 385-398.	4.1	17
737	Temporal Dilation of Deep LSTM for Agile Decoding of sEMG: Application in Prediction of Upper-Limb Motor Intention in NeuroRobotics. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 6212-6219.	3.3	19
738	Reliability of forearm medial-anterior surface dimensional changes at different isometric hand grip forces. <i>Journal of Bodywork and Movement Therapies</i> , 2021, 28, 92-97.	0.5	0
739	A Novel and Efficient Feature Extraction Method for Deep Learning Based Continuous Estimation. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7341-7348.	3.3	13
740	Neuromuscular disorders detection through time-frequency analysis and classification of multi-muscular EMG signals using Hilbert-Huang transform. <i>Biomedical Signal Processing and Control</i> , 2022, 71, 103037.	3.5	25
741	Variable weight algorithm for convolutional neural networks and its applications to classification of seizure phases and types. <i>Pattern Recognition</i> , 2022, 121, 108226.	5.1	16
742	Analyzing the impact of class transitions on the design of pattern recognition-based myoelectric control schemes. <i>Biomedical Signal Processing and Control</i> , 2022, 71, 103134.	3.5	2
743	Multichannel Feature Extraction for Pattern Recognition of EMG Signals in Time and Frequency Domain. <i>Design Science and Innovation</i> , 2021, , 807-814.	0.1	0
744	Design, Development and Evaluation of Novel Force Myography Based 2-Degree of Freedom Transradial Prosthesis. <i>IEEE Access</i> , 2021, 9, 130020-130031.	2.6	3
745	Semi-Automated Control System for Reaching Movements in EMG Shoulder Disarticulation Prosthesis Based on Mixed Reality Device. <i>IEEE Open Journal of Engineering in Medicine and Biology</i> , 2021, 2, 55-64.	1.7	4
746	Electromyography-Based Decoding of Dexterous, In-Hand Manipulation of Objects: Comparing Task Execution in Real World and Virtual Reality. <i>IEEE Access</i> , 2021, 9, 37297-37310.	2.6	5
747	The Mind-Controlled Robotic Hand. , 2014, , 173-190.		3
749	Three-Dimensional Simultaneous EMG Control Based on Multi-layer Support Vector Regression with Interactive Structure. <i>Lecture Notes in Computer Science</i> , 2015, , 282-293.	1.0	2
750	A Hybrid Classification Model for EMG Signals Using Grey Wolf Optimizer and SVMs. <i>Advances in Intelligent Systems and Computing</i> , 2016, , 297-307.	0.5	11

#	ARTICLE	IF	CITATIONS
751	Analysis of Inspiratory Muscle of Respiration in COPD Patients. Advances in Intelligent Systems and Computing, 2016, , 357-366.	0.5	2
752	Improvement of EMG Pattern Recognition by Eliminating Posture-Dependent Components. Advances in Intelligent Systems and Computing, 2017, , 19-30.	0.5	1
753	Recognition of Arm-and-Hand Visual Signals by Means of SVM to Increase Aircraft Security. Studies in Computational Intelligence, 2017, , 444-461.	0.7	7
755	Physiologic Approach for Control of Hand Prostheses. IFMBE Proceedings, 2009, , 1830-1834.	0.2	2
757	Fractal Analysis of Surface Electromyography (EMG) Signal for Identify Hand Movements Using Critical Exponent Analysis. Communications in Computer and Information Science, 2011, , 703-713.	0.4	8
759	Development of a Surface EMG Acquisition System with Novel Electrodes Configuration and Signal Representation. Lecture Notes in Computer Science, 2013, , 405-414.	1.0	19
760	Development of Bio-Signal Based Continuous Intensity Wearable Input Device. Lecture Notes in Electrical Engineering, 2014, , 615-631.	0.3	1
761	Realizing Efficient EMG-Based Prosthetic Control Strategy. Advances in Experimental Medicine and Biology, 2019, 1101, 149-166.	0.8	9
762	Surface Electromyography (EMG) Signal Processing, Classification, and Practical Considerations. Series in Bioengineering, 2020, , 3-29.	0.3	38
763	Gesture recognition for transhumeral prosthesis control using EMG and NIR. IET Cyber-Systems and Robotics, 2020, 2, 122-131.	1.1	51
765	Electromyography-Based Gesture Recognition: Is It Time to Change Focus From the Forearm to the Wrist?. IEEE Transactions on Industrial Informatics, 2022, 18, 174-184.	7.2	57
766	Electromyography (EMG) based Classification of Finger Movements using SVM. Journal of the Malaysian Branch of the Royal Asiatic Society, 2018, 8, .	0.2	10
767	INDEX FINGER MOTION RECOGNITION USING SELF-ADVISE SUPPORT VECTOR MACHINE. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 644-657.	0.4	5
768	General Perspectives on Electromyography Signal Features and Classifiers Used for Control of Human Arm Prosthetics. , 2018, , 492-504.		4
769	General Perspectives on Electromyography Signal Features and Classifiers Used for Control of Human Arm Prosthetics. Advances in Environmental Engineering and Green Technologies Book Series, 2019, , 1-17.	0.3	1
770	Online Finger Gesture Recognition Using Surface Electromyography Signals. Journal of Signal and Information Processing, 2013, 04, 101-105.	0.8	5
771	A Novel Pedestrian Dead Reckoning Solution Using Motion Recognition Algorithm with Wearable EMG Sensors. The Journal of Global Positioning Systems, 2011, 10, 39-49.	1.6	7
772	Title is missing!. Journal of Medical and Biological Engineering, 2010, 30, 399.	1.0	42

#	ARTICLE	IF	CITATIONS
773	Mean and Median Frequency of EMG Signal to Determine Muscle Force based on Time-Dependent Power Spectrum. Elektronika Ir Elektrotechnika, 2013, 19, .	0.4	79
774	A Shared Control Framework for Robotic Telemanipulation Combining Electromyography Based Motion Estimation and Compliance Control. , 2021, , .		11
775	Biomimetic Control of Myoelectric Prosthetic Hand Based on a Lambda-type Muscle Model. , 2021, , .		0
776	Optimal Channel-set and Feature-set Assessment for Foot Movement Based EMG Pattern Recognition. Applied Artificial Intelligence, 2021, 35, 1685-1707.	2.0	2
777	Dynamic Behavior of Time-Domain Features for Prosthesis Control. Lecture Notes in Computer Science, 2009, , 555-562.	1.0	1
778	Knee Angle Estimation Algorithm for Myoelectric Control of Active Transfemoral Prostheses. Communications in Computer and Information Science, 2010, , 124-135.	0.4	4
779	Swarm Based Fuzzy Discriminant Analysis for Multifunction Prosthesis Control. Lecture Notes in Computer Science, 2010, , 197-206.	1.0	1
780	Power Grasping of a Prosthetic Hand based upon Virtual Spring-Damper Hypothesis. , 2010, , .		1
781	Robot Manipulator Probabilistic Workspace Applied to Robotic Assistance. , 0, , .		0
782	Using Myoelectric Signals to Manipulate Assisting Robots and Rehabilitation Devices. , 2011, , 166-185.		0
783	Speed Based Surface EMG Classification Using Fuzzy Logic for Prosthetic Hand Control. IFMBE Proceedings, 2011, , 121-124.	0.2	1
785	Body Awareness in Prosthetic Hands. , 2012, , 183-198.		0
786	HIRO: Multi-fingered Haptic Interface Robot and Its Medical Application Systems. Springer Series on Touch and Haptic Systems, 2013, , 85-107.	0.2	2
787	Identification Scheme of Surface Electromyography of Upper Limb Movement. Journal of Networks, 2013, 8, .	0.4	1
790	Toward an Upper-Limb Neurorehabilitation Platform Based on FES-Assisted Bilateral Movement: Decoding User's Intentions. Lecture Notes in Computer Science, 2015, , 143-152.	1.0	0
791	Emerging Technologies for Neuro-Rehabilitation after Stroke. Advances in Medical Technologies and Clinical Practice Book Series, 2015, , 1-21.	0.3	1
792	Mechanical Design and Control of an Active Wrist Orthosis. Journal of Automation and Control Engineering, 2016, , 424-429.	0.3	0
793	Recognition of Movements Through Dynamic Electromyographic Signals. International Journal of Engineering Research & Technology, 2016, V5, .	0.2	0

#	ARTICLE	IF	CITATIONS
794	Hierarchical-Architecture Oriented to Multi-task Planning for Prosthetic Hands Controlling. Lecture Notes in Computer Science, 2017, , 157-166.	1.0	0
795	4. Upper and Lower Limb Robotic Prostheses. Rehabilitation Science in Practice Series, 2017, , 99-144.	0.0	2
798	An Armband-Type Finger Language Recognition System Based on Ensemble Artificial Neural Network. Journal of the Korean Society for Precision Engineering, 2018, 35, 13-18.	0.1	1
799	A Novel Physiologically-Inspired Method for Myoelectric Prosthesis Control Using Pattern Classification. Biosystems and Biorobotics, 2019, , 1017-1021.	0.2	0
800	A Hybrid Non-invasive Method for the Classification of Amputeeâ€™s Hand and Wrist Movements. IFMBE Proceedings, 2019, , 161-166.	0.2	0
801	Estimation and Assessment of Upper Limb Movements During Exercises of Children with Musculoskeletal Disorders. Mechanisms and Machine Science, 2019, , 2927-2936.	0.3	0
803	USE OF DEEP MACHINE LEARNING METHODS OF ARTIFICIAL NEURAL NETWORKS FOR DESIGNING ALGORITHMS OF ELECTROMYOGRAPHY SIGNAL RECOGNITION IN BIONIC PROSTHESIS. Issues of Radio Electronics, 2019, , 64-75.	0.1	0
804	SVM based Classification Of sEMG Signals using Time Domain Features for the Applications towards Arm Exoskeletons. , 2019, , .		3
805	Development of Multi-DoFs Prosthetic Forearm based on EMG Pattern Recognition and Classification. The Journal of Korea Robotics Society, 2019, 14, 228-235.	0.2	3
806	Training-Free sEMG Pattern Recognition Algorithm: A Case Study of A Patient with Partial-Hand Amputation. The Journal of Korea Robotics Society, 2019, 14, 211-220.	0.2	0
807	Surface EMG-based Estimation of Breathing Effort for Neurally Adjusted Ventilation Control. IFAC-PapersOnLine, 2020, 53, 16323-16328.	0.5	6
810	Extreme Gradient Boosting for Limb Position Invariant Myoelectric Pattern Recognition. , 2020, , .		5
811	Forearm Orientation Invariant Analysis for Surface Myoelectric Pattern Recognition. , 2020, , .		2
812	Enabling humanâ€™infrastructure interfaces for inspection using augmented reality. Structural Health Monitoring, 2021, 20, 1980-1996.	4.3	21
813	Human-Robot Interaction Based on Biosignals. , 2020, , .		0
814	Prototyping a Prosthetic Arm for Ulnar and Radial Deviation. , 2020, , .		3
815	Muscle fatigue analysis in biceps brachii surface electromyography signals using synchrosqueezed Morlet wavelet and singular value decomposition. Electronics Letters, 2021, 57, 42-44.	0.5	6
817	Design and Development of sEMG-Controlled Prosthetic Hand with Temperature and Pressure Sensory Feedback. Lecture Notes in Computer Science, 2020, , 320-331.	1.0	0

#	ARTICLE	IF	CITATIONS
818	Electromyography Pattern Recognition and Classification using Circular Structure Algorithm. The Journal of Korea Robotics Society, 2020, 15, 62-69.	0.2	0
819	Hand and Lower Arm Movements Classification Using Deep ANN and sEMG. , 2021, , .		0
820	An Adaptive Multi-Modal Control Strategy to Attenuate the Limb Position Effect in Myoelectric Pattern Recognition. Sensors, 2021, 21, 7404.	2.1	2
821	Prosthetic and Orthotic Devices. , 0, , 788-852.		1
822	Prosthetic and Orthotic Devices. , 0, , 549-613.		1
823	Using Myoelectric Signals to Manipulate Assisting Robots and Rehabilitation Devices. , 0, , 970-990.		0
824	Tongue Movement Estimation Based on Suprahyoid Muscle Activity. Advances in Medical Technologies and Clinical Practice Book Series, 0, , 257-273.	0.3	0
825	Classification of Surface Electromyogram Signals Acquired from the Forearm of a Healthy Volunteer. Advances in Medical Technologies and Clinical Practice Book Series, 0, , 315-333.	0.3	1
827	A Comprehensive Evaluation of Hidden Markov Model for Hand Movement Recognition with Surface Electromyography. , 2020, , .		4
828	A Neural Network Based on the Johnson S U Translation System and Related Application to Electromyogram Classification. IEEE Access, 2021, 9, 154304-154317.	2.6	2
829	sEMG-Based Hand Posture Recognition Considering Electrode Shift, Feature Vectors, and Posture Groups. Sensors, 2021, 21, 7681.	2.1	7
830	Questioning Domain Adaptation in Myoelectric Hand Prostheses Control: An Inter- and Intra-Subject Study. Sensors, 2021, 21, 7500.	2.1	6
831	Elements Influencing sEMG-Based Gesture Decoding: Muscle Fatigue, Forearm Angle and Acquisition Time. Sensors, 2021, 21, 7713.	2.1	14
833	A Novel Approach to Detecting Muscle Fatigue Based on sEMG by Using Neural Architecture Search Framework. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 4932-4943.	7.2	9
834	Effect of velocity and acceleration in joint angle estimation for an EMG-Based upper-limb exoskeleton control. Computers in Biology and Medicine, 2022, 141, 105156.	3.9	9
835	sEMG Recognition Based on Multi-channel Weight Configuration. , 2020, , .		0
836	EMG-Based Decoding of Manipulation Motions in Virtual Reality: Towards Immersive Interfaces. , 2020, , .		9
837	The Real Time Motion Pattern Recognition of Lower Limb Based on sEMG signals. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
838	The real-time recognition of upper limb micro motions based on sEMG signals. , 2020, , .		0
839	A novel methodology to classify myoelectric signals using genetic algorithms and support vector machines. , 2021, , .		0
841	sEMG based hand gesture recognition with deformable convolutional network. International Journal of Machine Learning and Cybernetics, 2022, 13, 1729-1738.	2.3	14
843	Comparing subject-to-subject transfer learning methods in surface electromyogram-based motion recognition with shallow and deep classifiers. Neurocomputing, 2022, 489, 599-612.	3.5	11
844	Surface electromyography classification using extreme learning machines and echo state networks. Research on Biomedical Engineering, 0, , 1.	1.5	2
845	Toward Generalization of sEMG-Based Pattern Recognition: A Novel Feature Extraction for Gesture Recognition. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-12.	2.4	17
846	XAI for myo-controlled prosthesis: Explaining EMG data for hand gesture classification. Knowledge-Based Systems, 2022, 240, 108053.	4.0	20
847	A relation spectrum inheriting Taylor series: muscle synergy and coupling for hand. Frontiers of Information Technology and Electronic Engineering, 2022, 23, 145-157.	1.5	5
848	Cognitive Workload Assessment of Prosthetic Devices: A Review of Literature and Meta-Analysis. IEEE Transactions on Human-Machine Systems, 2022, 52, 181-195.	2.5	7
849	Review on electromyography based intention for upper limb control using pattern recognition for human-machine interaction. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2022, 236, 628-645.	1.0	17
850	Multichannel haptic feedback unlocks prosthetic hand dexterity. Scientific Reports, 2022, 12, 2323.	1.6	17
851	A New Labeling Approach for Proportional Electromyographic Control. Sensors, 2022, 22, 1368.	2.1	4
852	Surface Electromyography as a Natural Humanâ€“Machine Interface: A Review. IEEE Sensors Journal, 2022, 22, 9198-9214.	2.4	29
853	A New Deep Anomaly Detection-Based Method for User Authentication Using Multichannel Surface EMG Signals of Hand Gestures. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	2.4	19
854	Proposed Fatigue Index for the Objective Detection of Muscle Fatigue Using Surface Electromyography and a Double-Step Binary Classifier. Sensors, 2022, 22, 1900.	2.1	10
855	Continuous Semi-autonomous Prosthesis Control Using a Depth Sensor on the Hand. Frontiers in Neurorobotics, 2022, 16, 814973.	1.6	10
856	Hierarchical Human-Inspired Control Strategies for Prosthetic Hands. Sensors, 2022, 22, 2521.	2.1	8
857	Assistive device to control prosthetic hand movements using machine learning approach. International Journal of Health Sciences, 2022, 6, 1386-1396.	0.0	0

#	ARTICLE	IF	CITATIONS
858	Investigation of Electrode Location to Improve the Accuracy of Wearable Hand Exoskeleton Trainer Based on Electromyography. <i>Journal of Biomimetics, Biomaterials and Biomedical Engineering</i> , 0, 55, 71-80.	0.5	1
859	Classification of Myopathy and Amyotrophic Lateral Sclerosis Electromyograms Using Bat Algorithm and Deep Neural Networks. <i>Behavioural Neurology</i> , 2022, 2022, 1-9.	1.1	6
860	A Real-Time Algorithm to Estimate Shoulder Muscle Fatigue Based on Surface EMG Signal For Static and Dynamic Upper Limb Tasks. , 2021, 2021, 100-106.		5
861	Comparing Machine Learning Methods and Feature Extraction Techniques for the EMG Based Decoding of Human Intention. , 2021, 2021, 4738-4743.		15
862	The Impact of Load Style Variation on Gait Recognition Based on sEMG Images Using a Convolutional Neural Network. <i>Sensors</i> , 2021, 21, 8365.	2.1	3
863	Controlling the Electric Wheelchair Using the Occlusal Myoelectric Signal. , 2021, , .		1
864	Electromyogram-Based Classification of Hand and Finger Gestures Using Artificial Neural Networks. <i>Sensors</i> , 2022, 22, 225.	2.1	35
865	Leveraging sEMG gesture recognition training on edge devices. , 2021, , .		0
866	Force Myography-Based Human Robot Interactions via Deep Domain Adaptation and Generalization. <i>Sensors</i> , 2022, 22, 211.	2.1	7
867	A standalone computing system to classify human foot movements using machine learning techniques for ankle-foot prosthesis control. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2021, , 1-11.	0.9	0
868	Research on Badminton Motion Recognition Based on Hidden Markov Model. , 2021, , .		0
869	Metric Learning for Robust Gait Phase Recognition for a Lower Limb Exoskeleton Robot Based on sEMG. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2022, 4, 472-479.	2.1	10
871	Slope recognition based on human body surface EMG signal Using CNN. , 2022, , .		0
872	Effects of EMG-Controlled Video Games on the Upper Limb Functionality in Patients with Multiple Sclerosis: A Feasibility Study and Development Description. <i>Computational Intelligence and Neuroscience</i> , 2022, 2022, 1-16.	1.1	1
875	Domain Adaptation With Self-Guided Adaptive Sampling Strategy: Feature Alignment for Cross-User Myoelectric Pattern Recognition. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2022, 30, 1374-1383.	2.7	10
876	Evaluation of feature projection techniques in object grasp classification using electromyogram signals from different limb positions. <i>PeerJ Computer Science</i> , 0, 8, e949.	2.7	4
877	Optimization of immune receptor-related hypersensitive cell death response assay using agrobacterium-mediated transient expression in tobacco plants. <i>Plant Methods</i> , 2022, 18, 57.	1.9	4
878	Training Strategy and sEMG Sensor Positioning for Finger Force Estimation at Various Elbow Angles. <i>International Journal of Control, Automation and Systems</i> , 2022, 20, 1621-1631.	1.6	2

#	ARTICLE	IF	CITATIONS
879	EMG-driven control in lower limb prostheses: a topic-based systematic review. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 43.	2.4	23
880	Competitive motivation increased home use and improved prosthesis self-perception after Cybathlon 2020 for neuromusculoskeletal prosthesis user. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 47.	2.4	3
881	Preliminary Evaluation of the Effect of Mechanotactile Feedback Location on Myoelectric Prosthesis Performance Using a Sensorized Prosthetic Hand. Sensors, 2022, 22, 3892.	2.1	5
882	Hardware Design of Low Cost Myoelectric Controlled Prosthetic Hand For Engineering Laboratory. Journal of the Institute of Science and Technology, 0, , 715-725.	0.3	0
883	Improved swarm-wavelet based extreme learning machine for myoelectric pattern recognition. Biomedical Signal Processing and Control, 2022, 77, 103737.	3.5	2
884	sEMG-Based Gesture Classifier for a Rehabilitation Glove. Frontiers in Neurorobotics, 2022, 16, .	1.6	7
887	Simultaneous Control of 2DOF Upper-Limb Prosthesis With Body Compensations-Based Control: A Multiple Cases Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1745-1754.	2.7	7
889	Real-Time Classification of EMG Myo Armband Data Using Support Vector Machine. Irbm, 2022, 43, 300-308.	3.7	15
890	Classification and simulation of process of linear change for grip force at different grip speeds by using supervised learning based on sEMG. Expert Systems With Applications, 2022, 206, 117785.	4.4	3
891	Deep Learning with Attention on Hand Gesture Recognition Based on sEMG. , 2022, , .		2
892	Continuous Finger Kinematics Estimation Based on sEMG and Attention-ConvGRU Network. Lecture Notes in Computer Science, 2022, , 345-353.	1.0	2
893	sEMG Onset Detection via Bidirectional Recurrent Neural Networks With Applications to Sports Science. IEEE Sensors Journal, 2022, 22, 18751-18761.	2.4	4
894	Calibration and Adjustment Algorithm to Attenuate the Effect of Arm Orientation on an sEMG-Based Muscle Fatigue Indicator. IEEE Sensors Journal, 2022, 22, 18793-18803.	2.4	0
895	Assessment Of Driving Stress Through SVM And KNN Classifiers On Multi-Domain Physiological Data. , 2022, , .		4
896	Design of Elbow Rehabilitation Exoskeleton Robot with sEMG-based Torque Estimation Control Strategy. , 2022, , .		1
898	Automatic detection of WCE bleeding frames using hybrid features and machine learning algorithms. , 2022, , .		2
899	Classification of human movements with and without spinal orthosis based on surface electromyogram signals. Medicine in Novel Technology and Devices, 2022, 16, 100165.	0.9	3
900	A Systematic Review of Sensor Fusion Methods Using Peripheral Bio-Signals for Human Intention Decoding. Sensors, 2022, 22, 6319.	2.1	6

#	ARTICLE	IF	CITATIONS
901	Electromyography Wearable Device Applied to the Medical Field. Wireless Communications and Mobile Computing, 2022, 2022, 1-10.	0.8	2
902	Detecting the universal adversarial perturbations on high-density sEMG signals. Computers in Biology and Medicine, 2022, 149, 105978.	3.9	1
903	Electromyography-Based, Robust Hand Motion Classification Employing Temporal Multi-Channel Vision Transformers. IEEE Robotics and Automation Letters, 2022, 7, 10200-10207.	3.3	13
904	sEMG time-frequency features for hand movements classification. Expert Systems With Applications, 2022, 210, 118282.	4.4	11
905	A FSR Sensor Cuff to Measure Muscle Activation During Strength and Gait Cycle for Lower Limb. IEEE Access, 2022, 10, 106135-106147.	2.6	0
906	Electromyography Based Decoding of Dexterous, In-Hand Manipulation Motions With Temporal Multichannel Vision Transformers. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 2207-2216.	2.7	11
907	On EMG Based Dexterous Robotic Telemanipulation: Assessing Machine Learning Techniques, Feature Extraction Methods, and Shared Control Schemes. IEEE Access, 2022, 10, 99661-99674.	2.6	7
908	Deep Learning Inspired Feature Engineering for Classifying Tremor Severity. IEEE Access, 2022, 10, 105377-105386.	2.6	2
909	Sonomyography shows feasibility as a tool to quantify joint movement at the muscle level. , 2022, , .		4
910	An Exploration of the Optimal Feature-Classifer Combinations for Transradial Prosthesis Control. , 2022, , .		1
911	The Effectiveness of Narrowing the Window size for LD & HD EMG Channels based on Novel Deep Learning Wavelet Scattering Transform Feature Extraction Approach. , 2022, , .		3
912	A novel silent speech recognition approach based on parallel inception convolutional neural network and Mel frequency spectral coefficient. Frontiers in Neurorobotics, 0, 16, .	1.6	5
913	Control of Brushless Direct-Current Motors Using Bioelectric EMG Signals. Sensors, 2022, 22, 6829.	2.1	3
914	A Fast EMG-Based Algorithm for Upper-Limb Motion Intention Detection by Using Levant's Differentiators. IEEE Access, 2022, 10, 111623-111635.	2.6	0
915	Electromyography-Based, Robust Hand Motion Classification Employing Temporal Multi-Channel Vision Transformers. , 2022, , .		2
916	Fuzzy inference system (FIS) - long short-term memory (LSTM) network for electromyography (EMG) signal analysis. Biomedical Physics and Engineering Express, 2022, 8, 065032.	0.6	5
917	sEMG-Based Hand Posture Recognition and Visual Feedback Training for the Forearm Amputee. Sensors, 2022, 22, 7984.	2.1	4
918	Myoelectric Control Systems for Upper Limb Wearable Robotic Exoskeletons and Exosuits: A Systematic Review. Sensors, 2022, 22, 8134.	2.1	11

#	ARTICLE	IF	CITATIONS
919	EWT-IIT: a surface electromyography denoising method. <i>Medical and Biological Engineering and Computing</i> , 2022, 60, 3509-3523.	1.6	1
920	EEG- and EMG-Driven Poststroke Rehabilitation: A Review. <i>IEEE Sensors Journal</i> , 2022, 22, 23649-23660.	2.4	13
921	Application of Min-Max Normalization on Subject-Invariant EMG Pattern Recognition. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-12.	2.4	12
922	Dataset on Force Myography for Human-Robot Interactions. <i>Data</i> , 2022, 7, 154.	1.2	4
923	Transfer learning in hand movement intention detection based on surface electromyography signals. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	5
924	Implementation of a neural network of low computational cost for its application in arm prostheses. <i>Revista De Ingenieria Tecnol3gica</i> , 0, , 27-34.	0.0	0
925	How do sEMG segmentation parameters influence pattern recognition process? An approach based on wearable sEMG sensor. <i>Biomedical Signal Processing and Control</i> , 2023, 81, 104546.	3.5	2
926	Microphone Mechanomyography Sensors for Movement Analysis and Identification. , 2022, , .		1
927	A Novel Methodology for Classifying EMG Movements Based on SVM and Genetic Algorithms. <i>Micromachines</i> , 2022, 13, 2108.	1.4	19
928	Random forest-based simultaneous and proportional myoelectric control system for finger movements. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 0, , 1-13.	0.9	2
929	On lightmyography based muscle-machine interfaces for the efficient decoding of human gestures and forces. <i>Scientific Reports</i> , 2023, 13, .	1.6	4
930	Simultaneous Gesture Classification and Speed Control for Myoelectric Prosthetic Hand Using Joint-Loss Neural Network. , 2022, , .		1
931	Lightmyography Based Decoding of Human Intention Using Temporal Multi-Channel Transformers. , 2022, , .		2
932	An Onset Based Approach for Feature Extraction and Classification of EMG Signals. , 2022, , .		2
933	SNR estimation in EMG signals contaminated with motion artifact. , 2022, , .		1
934	Reinforcement Learning-Based Grasp Pattern Control of Upper Limb Prosthetics in an AI Platform. , 2022, , .		1
935	A Unified User-Generic Framework for Myoelectric Pattern Recognition: Mix-Up and Adversarial Training for Domain Generalization and Adaptation. <i>IEEE Transactions on Biomedical Engineering</i> , 2023, 70, 2248-2257.	2.5	1
936	Applied Exoskeleton Technology: A Comprehensive Review of Physical and Cognitive Human-Robot Interaction. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2023, 15, 1102-1122.	2.6	2

#	ARTICLE	IF	CITATIONS
937	Wrist autonomy based on upper-limb synergy: a pilot study. <i>Medical and Biological Engineering and Computing</i> , 0, , .	1.6	0
938	sEMG-Based Gesture Recognition Using Temporal History. <i>IEEE Transactions on Biomedical Engineering</i> , 2023, , 1-12.	2.5	0
939	Motor Imagery Tasks Based Electroencephalogram Signals Classification Using Data-Driven Features. <i>Neuroscience Informatics</i> , 2023, 3, 100128.	2.8	1
940	Volitional control of upper-limb exoskeleton empowered by EMG sensors and machine learning computing. <i>Array</i> , 2023, 17, 100277.	2.5	3
941	Improvement of robustness against electrode shift for facial electromyogram-based facial expression recognition using domain adaptation in VR-based metaverse applications. <i>Virtual Reality</i> , 2023, 27, 1685-1696.	4.1	3
942	Using Wavelet Analysis and Deep Learning for EMG-Based Hand Movement Signal Classification. <i>Sakarya University Journal of Science</i> , 2023, 27, 214-225.	0.3	1
943	Realtime EMG signal processing with OneClassSVM to extract motion intentions for a hand rehabilitation robot. , 2023, , .		1
944	Design of low-cost biocompatible arm brace for upper limb paralysis using electromyography signal. <i>AIP Conference Proceedings</i> , 2023, , .	0.3	0
945	Assessment of Low-Density Force Myography Armband for Classification of Upper Limb Gestures. <i>Sensors</i> , 2023, 23, 2716.	2.1	4
946	Detecting Safety Anomalies in pHRI Activities via Force Myography. <i>Bioengineering</i> , 2023, 10, 326.	1.6	1
947	Similarity Function for One-Shot Learning to Enhance the Flexibility of Myoelectric Interfaces. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2023, 31, 1697-1706.	2.7	1
950	Multi-Attention Feature Fusion Network for Accurate Estimation of Finger Kinematics From Surface Electromyographic Signals. <i>IEEE Transactions on Human-Machine Systems</i> , 2023, , 1-8.	2.5	0
951	A Framework and Call to Action for the Future Development of EMG-Based Input in HCI. , 2023, , .		4
952	Recent trends and challenges of surface electromyography in prosthetic applications. <i>Biomedical Engineering Letters</i> , 2023, 13, 353-373.	2.1	4
953	Global classification of intentional movement across upper limb myoelectric pattern recognition-controlled prosthesis users. , 2023, , .		0
954	Privacy-Preserving Motor Intent Classification via Feature Disentanglement. , 2023, , .		1
955	A Novel Metric based on Bootstrapping Approach for sEMG Signal Quality Assessment Towards Robust Decoding of Lower Limb Locomotion. , 2023, , .		0
957	Human motion intention recognition method based on gasbag human-machine interactive force detection and multi-source information fusion. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
958	The Recognition of Ankle Movement Patterns Using LDA. Lecture Notes in Mechanical Engineering, 2023, , 2233-2251.	0.3	0
962	Improving the Myoelectric Feature Linearity to Enhance the Elbow Motion Estimation Using Kalman Filter. Lecture Notes in Electrical Engineering, 2023, , 543-554.	0.3	0
968	A testosterone pattern-based sEMG signal classification method using Singular Spectrum Analysis. , 2023, , .		0
979	Challenges and Trends of Machine Learning in the Myoelectric Control System for Upper Limb Exoskeletons and Exosuits. Artificial Intelligence, 0, , .	2.0	0
981	Deep Learning based sEMG decoding for TelePresence device control. , 2023, , .		0
982	Finger Movements Classification using Autonomous Transfer Learning. , 2023, , .		0
987	A Novel Surface Electromyography Signals Denoising Method for Gait Phase Classification. , 2023, , .		0
988	A novel method for sEMG-Based Hand Gesture Recognition. , 2023, , .		0
996	The development of a competitive multiplayer electromyography-based biofeedback video game. , 2023, , .		0
997	Multi-Grasp Classification for the Control of Robot Hands Employing Transformers and Lightmyography Signals. , 2023, , .		0
998	An Affordances and Electromyography Based Telemanipulation Framework for Control of Robotic Arm-Hand Systems. , 2023, , .		0
1002	Comparing the Effectiveness of EMG and Electrical Impedance myography Measurements for Controlling Prosthetics. , 2023, , .		0
1011	EMG-Based Hand Gesture Recognition Using Individual Sensors on Different Muscle Groups. , 2023, , .		0
1012	Modeling of Controller for Motor-Controlled Prosthetic Hand Based on Machine Learning Strategy in Classifying Two-Channel Surface EMG Signals. Lecture Notes in Electrical Engineering, 2024, , 51-71.	0.3	0