Classification of finger movements for the dexterous hand prosthesis control with surface electromyography

DOI: 10.1109/jbhi.2013.2249590
IEEE Journal of Biomedical and Health Informatics, 2013, 17, 608-18.

#	Paper	IF	Citations
238	A preliminary investigation of the effect of force variation for myoelectric control of hand prosthesis. **2013**, 2013, 5758-61		21
237	Protocol for site selection and movement assessment for the myoelectric control of a multi-functional upper-limb prosthesis. **2013**, 2013, 5817-20		2
236	Role of EEG as biomarker in the early detection and classification of dementia. **2014**, 2014, 906038		81
235	Recognizing sEMG Patterns for Interacting with Prosthetic Manipulation. **2014**, 283-307		
234	Swarm-wavelet based extreme learning machine for finger movement classification on transradial amputees. **2014**, 2014, 4192-5		4
233	Identification of low level sEMG signals for individual finger prosthesis. **2014**,		4
232	Dexterous control of a prosthetic hand using fine-wire intramuscular electrodes in targeted extrinsic muscles. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2014**, 22, 828-36	4.8	64
231	Invariant Surface EMG Feature Against Varying Contraction Level for Myoelectric Control Based on Muscle Coordination. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 874-82	7.2	65
230	Dynamical characteristics of surface EMG signals of hand grasps via recurrence plot. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 257-65	7.2	55
229	Control an exoskeleton for forearm rotation using FMG. **2014**,		14
228	Correlation analysis of electromyogram signals for multiuser myoelectric interfaces. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2014**, 22, 745-55	4.8	64
227	Swarm-based extreme learning machine for finger movement recognition. **2014**,		2
226	Classification of Gesture based on sEMG Decomposition: A Preliminary Study. **2014**, 47, 2969-2974		2
225	Low Power Spinal Motion and Muscle Activity Monitor. **2014**,		
224	Galileo bionic hand: sEMG activated approaches for a multifunction upper-limb prosthetic. **2015**,		16
223	Mechatronic Hand Prosthesis for Child. **2015**,		6
222	sEMG based quantitative assessment of acupuncture on Bell palsy: an experimental study. **2015**, 58, 1-15		2

221	. **2015**,		
220	. **2015**,		2
219	Experimental Study and Characterization of SEMG Signals for Upper Limbs. **2015**, 14, 1550028		13
218	Estimation of elbow joint angle by NARX model using EMG data. **2015**,		6
217	Design of an electromyographic mouse. **2015**,		3
216	Acquisition and Conditioning of Electromyographic Signals for Prosthetic Legs. **2015**,		1
215	Feature extraction and pattern recognition of EMG-based signal for hand movements. **2015**,		7
214	Wearable Sensing for Solid Biomechanics: A Review. *IEEE Sensors Journal*, **2015**, 1-1	4	35
213	A real-time pinch-to-zoom motion detection by means of a surface EMG-based human-computer interface. *Sensors*, **2014**, 15, 394-407	3.8	19
212	Evaluation of regression methods for the continuous decoding of finger movement from surface EMG and accelerometry. **2015**,		33
211	A Robust Bearing Fault Detection and Diagnosis Technique for Brushless DC Motors Under Non-stationary Operating Conditions. **2015**, 26, 241-254		29
210	. **2015**,		8
209	Feasibility of NeuCube spiking neural network architecture for EMG pattern recognition. **2015**,		7
208	Nonnegative matrix factorization for the identification of EMG finger movements: evaluation using matrix analysis. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 478-485	7.2	77
207	A survey of sensor fusion methods in wearable robotics. **2015**, 73, 155-170		138
206	Implementation of a real-time automatic onset time detection for surface electromyography measurement systems using NI myRIO. **2016**, 20, 591-602		3
205	Force Myography to Control Robotic Upper Extremity Prostheses: A Feasibility Study. **2016**, 4, 18		70
204	Evaluating EMG Feature and Classifier Selection for Application to Partial-Hand Prosthesis Control. **2016**, 10, 15		45

203	. **2016**,		1
202	. **2016**,		5
201	EMG controlled low cost prosthetic arm. **2016**,		9
200	. **2016**,		3
199	Learning Probabilistic Features from EMG Data for Predicting Knee Abnormalities. **2016**, 668-672		0
198	Towards a Versatile Surface Electromyography Classification System. **2016**, 33-36		1
197	Combined influence of forearm orientation and muscular contraction on EMG pattern recognition. *Expert Systems With Applications*, **2016**, 61, 154-161	7.8	99
196	Continuous Prediction of Finger Movements Using Force Myography. **2016**, 36, 594-604		42
195	Proportional estimation of finger movements from high-density surface electromyography. **2016**, 13, 73		35
194	Individual hand motion classification through EMG pattern recognition: Supervise and unsupervised methods. **2016**,		4
193	An ensemble-based regression approach for continuous estimation of wrist and fingers movements from surface electromyography. **2016**, 2016, 319-322		4
192	Myoelectric feature extraction using temporal-spatial descriptors for multifunction prosthetic hand control. **2016**, 2016, 1696-1699		6
191	Hand gesture recognition based on sEMG signals using Support Vector Machines. **2016**,		10
190	Short latency hand movement classification based on surface EMG spectrogram with PCA. **2016**, 2016, 327-330		20
189	Gestural Interaction with Mobile Devices. **2016**,		0
188	Continuous estimation of hand's joint angles from sEMG using wavelet-based features and SVR. **2016**,		2
187	sEMG-Based Identification of Hand Motion Commands Using Wavelet Neural Network Combined With Discrete Wavelet Transform. **2016**, 63, 1923-1934		96
186	Real-Time Classification of Hand Motions Using Ultrasound Imaging of Forearm Muscles. **2016**, 63, 1687-98		67

185	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, 650-61	4.8	157
184	Reduced Daily Recalibration of Myoelectric Prosthesis Classifiers Based on Domain Adaptation. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 166-76	7.2	41
183	Development of a Multi-Channel Compact-Size Wireless Hybrid sEMG/NIRS Sensor System for Prosthetic Manipulation. *IEEE Sensors Journal*, **2016**, 16, 447-456	4	47
182	Transradial Amputee Gesture Classification Using an Optimal Number of sEMG Sensors: An Approach Using ICA Clustering. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2016**, 24, 837-46	4.8	98
181	An Analysis of Intrinsic and Extrinsic Hand Muscle EMG for Improved Pattern Recognition Control. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2016**, 24, 485-94	4.8	68
180	Single-Channel EMG Classification With Ensemble-Empirical-Mode-Decomposition-Based ICA for Diagnosing Neuromuscular Disorders. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2016**, 24, 734-43	4.8	88
179	Chinese Sign Language Recognition Based on an Optimized Tree-Structure Framework. *IEEE Journal of Biomedical and Health Informatics*, **2017**, 21, 994-1004	7.2	40
178	Classification of Phantom Finger, Hand, Wrist, and Elbow Voluntary Gestures in Transhumeral Amputees With sEMG. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2017**, 25, 68-77	4.8	29
177	Ranking hand movements for myoelectric pattern recognition considering forearm muscle structure. **2017**, 55, 1507-1518		11
176	Single channel surface EMG control of advanced prosthetic hands: A simple, low cost and efficient approach. *Expert Systems With Applications*, **2017**, 79, 322-332	7.8	72
175	Deep learning-based artificial vision for grasp classification in myoelectric hands. **2017**, 14, 036025		81
174	Decodificaci□ de Movimientos Individuales de los Dedos y Agarre a Partir de Se□ales Mioel□tricas de Baja Densidad. **2017**, 14, 184-192		3
173	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	4.8	72
172	Classification of neuromuscular disorders using features extracted in the wavelet domain of sEMG signals: a case study. **2017**, 7, 33-39		4
171	Wireless sEMG-Based Body-Machine Interface for Assistive Technology Devices. *IEEE Journal of Biomedical and Health Informatics*, **2017**, 21, 967-977	7.2	22
170	SVM based simultaneous hand movements classification using sEMG signals. **2017**,		10
169	Finger Movement Recognition During Ballistic Movements Using Electromyography. **2017**,		1
168	Autonomous Selection of Closing Posture of a Robotic Hand Through Embodied Soft Matter Capacitive Sensors. *IEEE Sensors Journal*, **2017**, 17, 5669-5677	4	32

167	Towards Autonomous Grasping with Robotic Prosthetic Hands. **2017**,		
166	Muscle Synergy-based Grasp Classification for Robotic Hand Prosthetics. **2017**, 2017, 335-338		7
165	Classification of ankle joint movements based on surface electromyography signals for rehabilitation robot applications. **2017**, 55, 747-758		20
164	Evaluation of extreme learning machine for classification of individual and combined finger movements using electromyography on amputees and non-amputees. **2017**, 85, 51-68		37
163	Towards Chinese sign language recognition using surface electromyography and accelerometers. **2017**,		7
162	Early prediction of future hand movements using sEMG data. **2017**, 2017, 54-57		3
161	Myoelectric control systems for hand rehabilitation device: A review. **2017**,		9
160	Wrist movement detection for prosthesis control using surface EMG and triaxial accelerometer. **2017**,		3
159	Identification of finger movements from forearm surface EMG using an augmented probabilistic neural network. **2017**,		3
158	Pilot study on fine finger movement regression, using FMG. **2017**,		2
157	Exploring the relation between EMG sampling frequency and hand motion recognition accuracy. **2017**,		11
156	EMG Spectral Analysis for Prosthetic Finger Control. **2017**,		0
155	Multiple Sensors Based Hand Motion Recognition Using Adaptive Directed Acyclic Graph. *Applied Sciences (Switzerland)*, **2017**, 7, 358	2.6	18
154	Proof of Concept of an Online EMG-Based Decoding of Hand Postures and Individual Digit Forces for Prosthetic Hand Control. **2017**, 8, 7		33
153	sEMG Sensor Using Polypyrrole-Coated Nonwoven Fabric Sheet for Practical Control of Prosthetic Hand. **2017**, 11, 33		21
152	Improved prosthetic hand control with concurrent use of myoelectric and inertial measurements. **2017**, 14, 71		91
151	Neural Reinforcement Learning based Identifier for Typing Keys using Forearm EMG Signals. **2017**,		1
150	Dexterous hand gestures recognition based on low-density sEMG signals for upper-limb forearm amputees. **2017**, 33, 202-217		5

149	A Novel Unsupervised Adaptive Learning Method for Long-Term Electromyography (EMG) Pattern Recognition. *Sensors*, **2017**, 17,	3.8	26
148	Discrimination of stroke-related mild cognitive impairment and vascular dementia using EEG signal analysis. **2018**, 56, 137-157		30
147	sEMG Signal Classification Using DWT and Bagging for Basic Hand Movements. **2018**,		5
146	A Machine Learning System for Classification of EMG Signals to Assist Exoskeleton Performance. **2018**,		5
145	Recurrent Neural Networks with Weighting Loss for Early prediction of Hand Movements. **2018**,		12
144	Hand Motion Recognition Based on GA Optimized SVM Using sEMG Signals. **2018**,		3
143	A Hybrid Cnn-Svm Classifier For Hand Gesture Recognition With Surface Emg Signals. **2018**,		7
142	Recurrent Neural Network Based Early Prediction of Future Hand Movements. **2018**, 2018, 4710-4713		12
141	Trajectory Tracking Methodology using sEMG Signals for Tracking Finger Motions. **2018**,		
140	Phantom-Mobility-Based Prosthesis Control in Transhumeral Amputees Without Surgical Reinnervation: A Preliminary Study. **2018**, 6, 164		3
139	Activity Detection from Wearable Electromyogram Sensors using Hidden Markov Model. **2018**,		1
138	Adaptive Windowing Framework for Surface Electromyogram-Based Pattern Recognition System for Transradial Amputees. *Sensors*, **2018**, 18,	3.8	16
137	A Classification Method for Myoelectric Control of Hand Prostheses Inspired by Muscle Coordination. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2018**, 26, 1745-1755	4.8	20
136	Hand gesture recognition using force myography of the forearm activities and optimized features. **2018**,		10
135	Multi-length Windowed Feature Selection for Surface EMG Based Hand Motion Recognition. **2018**, 264-274		1
134	Prediction of Twist Angle for Assistive Exoskeleton Based on EMG Signals. **2018**,		0
133	Combining EEG signal processing with supervised methods for Alzheimer's patients classification. **2018**, 18, 35		50
132	Simultaneous Force Regression and Movement Classification of Fingers Surface EMG within a Unified Bayesian Framework. **2018**, 6, 13		12

131	Robust hand gesture recognition with a double channel surface EMG wearable armband and SVM classifier. *Biomedical Signal Processing and Control*, **2018**, 46, 121-130	4.9	57
130	Evaluation of feature extraction techniques and classifiers for finger movement recognition using surface electromyography signal. **2018**, 56, 2259-2271		21
129	Myoelectric Pattern Recognition for Controlling a Robotic Hand: A Feasibility Study in Stroke. **2019**, 66, 365-372		38
128	Feature Extraction and Classification of Hand Movements Surface Electromyogram Signals Based on Multi-method Integration. **2019**, 49, 1179-1188		3
127	A Soft-Robotic Approach to Anthropomorphic Robotic Hand Dexterity. **2019**, 7, 101483-101495		39
126	Foot Gesture Recognition Through Dual Channel Wearable EMG System. *IEEE Sensors Journal*, **2019**, 19, 10187-10197	4	13
125	Pattern recognition of electromyography (EMG) signal for wrist movement using learning vector quantization (LVQ). **2019**, 506, 012020		4
124	. **2019**,		4
123	Development of an Armband EMG Module and a Pattern Recognition Algorithm for the 5-Finger Myoelectric Hand Prosthesis. **2019**, 20, 1997-2006		11
122	putEMG-A Surface Electromyography Hand Gesture Recognition Dataset. *Sensors*, **2019**, 19,	3.8	19
121	Tracing the Motion of Finger Joints for Gesture Recognition via Sewing RGO-Coated Fibers Onto a Textile Glove. *IEEE Sensors Journal*, **2019**, 19, 9504-9511	4	17
120	Proprioceptive Sonomyographic Control: A novel method for intuitive and proportional control of multiple degrees-of-freedom for individuals with upper´extremity limb loss. *Scientific Reports*, **2019**, 9, 9499	4.9	29
119	A Soft Exoglove Equipped With a Wearable Muscle-Machine Interface Based on Forcemyography and Electromyography. **2019**, 4, 3240-3246		20
118	Real-Time EMG Based Pattern Recognition Control for Hand Prostheses: A Review on Existing Methods, Challenges and Future Implementation. *Sensors*, **2019**, 19,	3.8	79
117	Feature Analysis for Classification of Physical Actions Using Surface EMG Data. *IEEE Sensors Journal*, **2019**, 19, 12196-12204	4	15
116	Tonic Cold Pain Detection Using Choi‐Williams Time-Frequency Distribution Analysis of EEG Signals: A Feasibility Study. *Applied Sciences (Switzerland)*, **2019**, 9, 3433	2.6	7
115	Electromyogram-controlled assistive devices. **2019**, 285-311		1
114	Myoelectric Signal Classification of Targeted Muscles Using Dictionary Learning. *Sensors*, **2019**, 19,	3.8	4

113	Formulation of a new gradient descent MARG orientation algorithm: Case study on robot teleoperation. **2019**, 130, 183-200	34
112	Finger movements recognition using minimally redundant features of wavelet denoised EMG. **2019**, 9, 579-593	7
111	A Neural Network Classification of sEMG Signals for Estimation of Force While Gripping. **2019**, 585-593	0
110	A Review on Electromyography Decoding and Pattern Recognition for Human-Machine Interaction. **2019**, 7, 39564-39582	73
109	Offline and online myoelectric pattern recognition analysis and real-time control of a robotic hand after spinal cord injury. **2019**, 16, 036018	15
108	Prediction of Individual Finger Forces Based on Decoded Motoneuron Activities. **2019**, 47, 1357-1368	20
107	A Wavelet-Based Approach for Estimating the Joint Angles of the Fingers and Wrist Using Electromyography Signals. **2019**, 31-45	
106	Introduction and Background. **2019**, 1-26	2
105	New Technologies to Improve Patient Rehabilitation. **2019**,	
104	Pattern Classification and Its Applications to Control of Biomechatronic Systems. **2019**, 139-154	2
103	Finger Movement Pattern Recognition from Surface EMG Signals Using Machine Learning Algorithms. **2019**, 75-89	3
102	Exploring the Relation Between EMG Pattern Recognition and Sampling Rate Using Spectrogram. **2019**, 14, 947-953	4
101	Recognition of Finger Motions Based on Surface Electromyographic Signals and Artificial Neural Network. **2019**,	
100	sEMG signal based hand and finger movement clasification using different classifiers and techniques : A Review. **2019**,	
99	Myoelectric Control for Upper Limb Prostheses. **2019**, 8, 1244	13
98	Learn the Temporal-Spatial Feature of sEMG via Dual-Flow Network. **2019**, 16, 1941004	7
97	Toward the gestural interface: comparative analysis between touch user interfaces versus gesture-based user interfaces on mobile devices. **2019**, 18, 107-126	8
96	A multi-stream convolutional neural network for sEMG-based gesture recognition in muscle-computer interface. **2019**, 119, 131-138	75

95	A new hand finger movements classification system based on bicoherence analysis of two-channel surface EMG signals. **2019**, 31, 3327-3337		3
94	. **2019**, 11, 162-175		26
93	Surface electromyography feature extraction via convolutional neural network. **2020**, 11, 185-196		24
92	Sparsity Analysis of a Sonomyographic Muscle-Computer Interface. **2020**, 67, 688-696		11
91	Selection of Features and Classifiers for EMG-EEG-Based Upper Limb Assistive Devices-A Review. **2020**, 13, 248-260		11
90	Electromyogram (EMG) based fingers movement recognition using sparse filtering of wavelet packet coefficients. **2020**, 45, 1		5
89	Locomo-Net: A Low -Complex Deep Learning Framework for sEMG-Based Hand Movement Recognition for Prosthetic Control. **2020**, 8, 2100812		5
88	Guiding the Training of Users With a Pattern Similarity Biofeedback to Improve the Performance of Myoelectric Pattern Recognition. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1731-1741	4.8	1
87	A review of the key technologies for sEMG-based human-robot interaction systems. *Biomedical Signal Processing and Control*, **2020**, 62, 102074	4.9	31
86	Multi-Segmentation Parallel CNN Model for Estimating Assembly Torque Using Surface Electromyography Signals. *Sensors*, **2020**, 20,	3.8	4
85	Compliant Underwater Manipulator with Integrated Tactile Sensor for Nonlinear Force Feedback Control of an SMA Actuation System. **2020**, 315, 112221-112221		3
84	Toward Universal Neural Interfaces for Daily Use: Decoding the Neural Drive to Muscles Generalises Highly Accurate Finger Task Identification Across Humans. **2020**, 8, 149025-149035		4
83	LSTM Classification of sEMG Signals For Individual Finger Movements Using Low Cost Wearable Sensor. **2020**,		4
82	Simultaneous Hand Gesture Classification and Finger Angle Estimation via a Novel Dual-Output Deep Learning Model. *Sensors*, **2020**, 20,	3.8	9
81	Adaptive Spatial Filtering of High-Density EMG for Reducing the Influence of Noise and Artefacts in Myoelectric Control. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1511-1517	4.8	12
80	A spiking network classifies human sEMG signals and triggers finger reflexes on a robotic hand. **2020**, 131, 103566		1
79	Performance evaluation of pattern recognition networks using electromyography signal and time-domain features for the classification of hand gestures. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2020**, 234, 639-648	1.7	5
78	EMG-driven hand model based on the classification of individual finger movements. *Biomedical Signal Processing and Control*, **2020**, 58, 101834	4.9	20

77	Efficient correction of armband rotation for myoelectric-based gesture control interface. **2020**, 17, 036025		6
76	. **2020**, 8, 56290-56299		5
75	Dynamic Analysis and Performance Verification of a Novel Hip Prosthetic Mechanism. **2020**, 33,		6
74	A Real-Time Capable Linear Time Classifier Scheme for Anticipated Hand Movements Recognition from Amputee Subjects Using Surface EMG Signals. **2021**, 42, 277-293		5
73	A Novel Signal Normalization Approach to Improve the Force Invariant Myoelectric Pattern Recognition of Transradial Amputees. **2021**, 9, 79853-79868		4
72	Surface EMG vs. High-Density EMG: Tradeoff Between Performance and Usability for Head Orientation Prediction in VR Application. **2021**, 9, 45418-45427		2
71	A low-cost transradial prosthesis controlled by the intention of muscular contraction. **2021**, 44, 229-241		5
70	Single-channel surface electromyography (sEMG) based control of a multi-functional prosthetic hand. **2021**, 49, 428-444		1
69	Grasp to See-Object Classification Using Flexion Glove with Support Vector Machine. *Sensors*, **2021**, 21,	3.8	0
68	. **2021**,		
67	EMG based classification for pick and place task. **2021**, 7,		1
66	Locomotion Mode Recognition for Walking on Three Terrains Based on sEMG of Lower Limb and Back Muscles. *Sensors*, **2021**, 21,	3.8	1
65	LSTM Classification of Functional Grasps Using sEMG Data from Low-Cost Wearable Sensor. **2021**,		2
64	Measurements comparison of finger joint angles in hand postures between an sEMG armband and a sensory glove. **2021**, 41, 605-616		1
63	Force-Invariant Improved Feature Extraction Method for Upper-Limb Prostheses of Transradial Amputees. **2021**, 11,		4
62	Concurrent Estimation of Finger Flexion and Extension Forces Using Motoneuron Discharge Information. **2021**, 68, 1638-1645		4
61	Effects of Sampling Rate and Window Length on Motion Recognition Using sEMG Armband Module. **2021**, 22, 1401		1
60	Multimodal Data Fusion of Electromyography and Acoustic Signals for Thai Syllable Recognition. *IEEE Journal of Biomedical and Health Informatics*, **2021**, 25, 1997-2006	7.2	2

59	A Statistical Method for Exploratory Data Analysis Based on 2D and 3D Area under Curve Diagrams: Parkinson's Disease Investigation. *Sensors*, **2021**, 21,	3.8	2
58	Automated estimation of clinical parameters by recurrence quantification analysis of surface EMG for agonist/antagonist muscles in amputees. *Biomedical Signal Processing and Control*, **2021**, 68, 102740	4.9	0
57	Hand gestures recognition from surface electromyogram signal based on self-organizing mapping and radial basis function network. *Biomedical Signal Processing and Control*, **2021**, 68, 102629	4.9	5
56	A Novel Adaptive Mutation PSO Optimized SVM Algorithm for sEMG-Based Gesture Recognition. **2021**, 2021, 1-13		2
55	Classification of sEMG signals of hand gestures based on energy features. *Biomedical Signal Processing and Control*, **2021**, 70, 102948	4.9	3
54	Pattern recognition of EMG signals for low level grip force classification. **2021**, 7,		4
53	Design of upper limb prosthesis using real-time motion detection method based on EMG signal processing. *Biomedical Signal Processing and Control*, **2021**, 70, 103062	4.9	3
52	Development of a Surface EMG Acquisition System with Novel Electrodes Configuration and Signal Representation. **2013**, 405-414		14
51	Electromyography (EMG) signal classification for wrist movement using naïve bayes classifier. **2019**, 1424, 012013		2
50	Spatial Mapping and Feature Analysis for Individual Finger Movements Using High Density Electromyography: Preliminary Study. **2020**, 8, 75-79		1
49	INDEX FINGER MOTION RECOGNITION USING SELF-ADVISE SUPPORT VECTOR MACHINE. **2014**, 7, 644-657		5
48	Auto-Encoder based Deep Learning for Surface Electromyography Signal Processing. **2018**, 3, 94-102		3
47	Robustness of Combined sEMG and Ultrasound Modalities Against Muscle Fatigue in Force Estimation. **2021**, 213-221		1
46	Biosignal-Based Human-Machine Interfaces for Assistance and Rehabilitation: A Survey. *Sensors*, **2021**, 21,	3.8	4
45	Development of a Highly Dexterous Robotic Hand with Independent Finger Movements for Amputee Training. **2014**, 291-293		0
44	Gesture Recognition Through Classification of Acoustic Muscle Sensing for Prosthetic Control. **2017**, 637-642		4
43	Feature Extraction of Surface EMG Using Wavelet Transform for Identification of Motor Neuron Disorder. **2018**, 363-373		
42	Motion prediction using electromyography and sonomyography for an individual with transhumeral limb loss.		0

41	Improving Gesture Recognition by Bidirectional Temporal Convolutional Netwoks. **2020**, 413-424		0
40	Electromyography-Based Detection of Human Hand Movement Gestures. **2021**, 729-735		
39	Classification of Individual Finger Movements from Right Hand Using fNIRS Signals. *Sensors*, **2021**, 21,	3.8	1
38	A Novel Hybrid Approach to Pattern Recognition of Finger Movements and Grasping Gestures in Upper Limb Amputees. *IEEE Sensors Journal*, **2021**, 1-1	4	2
37	Effect of velocity and acceleration in joint angle estimation for an EMG-Based upper-limb exoskeleton control.. *Computers in Biology and Medicine*, **2021**, 141, 105156	7	1
36	A Novel Water Proof Prosthetic Hand Based on Conductive Silicon sEMG Sensors. **2020**,		
35	Head-Orientation-Prediction Based on Deep Learning on sEMG for Low-Latency Virtual Reality Application. **2020**,		
34	Dynamic hand gesture recognition using a stretchable multi-layer capacitive array, proximity sensing, and a SVM classifier. **2021**,		1
33	EMG Signal Classification Using Reflection Coefficients and Extreme Value Machine. **2021**,		1
32	A novel concatenate feature fusion RCNN architecture for sEMG-based hand gesture recognition.. *PLoS ONE*, **2022**, 17, e0262810	3.7	0
31	Comparing subject-to-subject transfer learning methods in surface electromyogram-based motion recognition with shallow and deep classifiers. *Neurocomputing*, **2022**,	5.4	1
30	XAI for myo-controlled prosthesis: Explaining EMG data for hand gesture classification. *Knowledge-Based Systems*, **2022**, 240, 108053	7.3	2
29	Assistive robotic exoskeleton using recurrent neural networks for decision taking for the robust trajectory tracking. *Expert Systems With Applications*, **2022**, 193, 116482	7.8	1
28	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**, 9544119221074770	1.7	4
27	Multichannel haptic feedback unlocks prosthetic hand dexterity.. *Scientific Reports*, **2022**, 12, 2323	4.9	2
26	Myoelectric Control Performance of Two Degree of Freedom Hand-Wrist Prosthesis by Able-Bodied and Limb-Absent Subjects.. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2022**, PP,	4.8	0
25	A machine learning approach to identify hand actions from single-channel sEMG signals.. *Biomedizinische Technik*, **2022**,	1.3	0
24	sEMG Signals Characterization and Identification of Hand Movements by Machine Learning Considering Sex Differences. *Applied Sciences (Switzerland)*, **2022**, 12, 2962	2.6	1

23	Hierarchical Classification of Grasp Motions using EMG signals. **2021**,		
22	An Approach for sEMG-based Gesture Recognition Using Continuous Wavelet Transform and AlexNet Convolutional Neural Network. **2021**,		1
21	EMG Driven Robotic-Aided Arm Rehabilitation. *Mechanisms and Machine Science*, **2022**, 343-350	0.3	
20	Evaluation of feature projection techniques in object grasp classification using electromyogram signals from different limb positions. *PeerJ Computer Science*, 8, e949	2.7	1
19	A hybrid approach to product prototype usability testing based on surface EMG images and convolutional neural network classification. *Computer Methods and Programs in Biomedicine*, **2022**, 106870	6.9	0
18	Study on Intention Recognition and Sensory Feedback: Control of Robotic Prosthetic Hand through EMG Classification and Proprioceptive Feedback using Rule-based Haptic Device. *IEEE Transactions on Haptics*, **2022**, 1-1	2.7	0
17	A chaotic neural network model for biceps muscle based on Rossler stimulation equation and bifurcation diagram. *Biomedical Signal Processing and Control*, **2022**, 78, 103852	4.9	0
16	Selection of the Best Set of Features for sEMG-Based Hand Gesture Recognition Applying a CNN Architecture. *Sensors*, **2022**, 22, 4972	3.8	
15	Hand Movement Recognition with Long Short-Term Memory based Pattern Recognition of Acoustic Myography signals. **2022**,		
14	Research on sEMG-based gesture recognition using the Attention-based LSTM-CNN with Stationary Wavelet Packet Transform. **2022**,		
13	Hand Gesture Recognition with Acoustic Myography and Wavelet Scattering Transform. **2022**, 1-1		0
12	Toward Online Removal of Cardiac Interference From Trunk Electromyography by Morphological Modeling of the Electrocardiography. **2022**, 1, 1-9		0
11	Continuous Estimation of Human Joint Angles from sEMG Using a Multi-Feature Temporal Convolutional Attention-Based Network. **2022**, 1-12		0
10	Decoding of multiple wrist and hand movements using a transient EMG classifier. **2022**, 1-1		0
9	Transfer learning in hand movement intention detection based on surface electromyography signals. 16,		0
8	A systematic review on surface electromyography-based classification system for identifying hand and finger movements. **2023**, 3, 100126		0
7	Development of a wearable ultrasound transducer for sensing muscle activities in assistive robotics applications: In vivo study. **2022**,		0
6	DL-Net: Sparsity Prior Learning for Grasp Pattern Recognition. **2023**, 1-1		0

5	Reinforcement Learning-Based Grasp Pattern Control of Upper Limb Prosthetics in an AI Platform. **2022**,	0
4	Natural Grasp Intention Recognition Based on Gaze in HumanRobot Interaction. **2023**, 1-12	0
3	Optimizing electrode positions on forearm to increase SNR and myoelectric pattern recognition performance. **2023**, 122, 106160	0
2	FlexType: Flexible Text Input with a Small Set of Input Gestures. **2023**,	0
1	Recent trends and challenges of surface electromyography in prosthetic applications.	0