

Sridhar P. Arjunan

List of Publications by Year in descending order

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Version: 2024-02-01

141
papers

1,309
citations

430442

18
h-index

500791

28
g-index

142
all docs

142
docs citations

142
times ranked

1310
citing authors

#	ARTICLE	IF	CITATIONS
1	Distinguishing Different Stages of Parkinson's Disease Using Composite Index of Speed and Pen-Pressure of Sketching a Spiral. <i>Frontiers in Neurology</i> , 2017, 8, 435.	1.1	91
2	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
3	Efficacy of Guided Spiral Drawing in the Classification of Parkinson's Disease. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2018, 22, 1648-1652.	3.9	59
4	An ICA-EBM-Based sEMG Classifier for Recognizing Lower Limb Movements in Individuals With and Without Knee Pathology. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 675-686.	2.7	55
5	Evaluation of feature extraction techniques in emotional state recognition. , 2012, , .		50
6	Development of Health Parameter Model for Risk Prediction of CVD Using SVM. <i>Computational and Mathematical Methods in Medicine</i> , 2016, 2016, 1-7.	0.7	41
7	Prosthetic hand control: A multidisciplinary review to identify strengths, shortcomings, and the future. <i>Biomedical Signal Processing and Control</i> , 2019, 53, 101588.	3.5	41
8	Locomo-Net: A Low-Complex Deep Learning Framework for sEMG-Based Hand Movement Recognition for Prosthetic Control. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2020, 8, 1-12.	2.2	38
9	Measuring Increase in Synchronization to Identify Muscle Endurance Limit. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2011, 19, 578-587.	2.7	35
10	Computation and Evaluation of Features of Surface Electromyogram to Identify the Force of Muscle Contraction and Muscle Fatigue. <i>BioMed Research International</i> , 2014, 2014, 1-6.	0.9	32
11	Applications of ICA and fractal dimension in sEMG signal processing for subtle movement analysis: a review. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2011, 34, 179-193.	1.4	30
12	Pattern classification of Myo-Electrical signal during different Maximum Voluntary Contractions: A study using BSS techniques. <i>Measurement Science Review</i> , 2010, 10, 1-6.	0.6	28
13	Fractal Based Modelling and Analysis of Electromyography (EMG) To Identify Subtle Actions. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 1961-4.	0.5	27
14	Selection of suitable hand gestures for reliable myoelectric human computer interface. <i>BioMedical Engineering OnLine</i> , 2015, 14, 30.	1.3	25
15	Complexity Measures of Voice Recordings as a Discriminative Tool for Parkinson's Disease. <i>Biosensors</i> , 2020, 10, 1.	2.3	25
16	Age-associated changes in muscle activity during isometric contraction. <i>Muscle and Nerve</i> , 2013, 47, 545-549.	1.0	22
17	Computation of fractal features based on the fractal analysis of surface Electromyogram to estimate force of contraction of different muscles. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 210-216.	0.9	21
18	Visual Speech Recognition Using Image Moments and Multiresolution Wavelet Images. , 0, , .		20

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19	Visual recognition of speech consonants using facial movement features. Integrated Computer-Aided Engineering, 2007, 14, 49-61.	2.5	20
20	Towards identification of finger flexions using single channel surface electromyography “ able bodied and amputee subjects. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 50.	2.4	19
21	Extracting tumor in MR brain and breast image with Kapur’s entropy based Cuckoo Search Optimization and morphological reconstruction filters. Biocybernetics and Biomedical Engineering, 2018, 38, 918-930.	3.3	19
22	A machine learning based method for classification of fractal features of forearm sEMG using Twin Support vector machines. , 2010, 2010, 4821-4.		17
23	Which Gait Parameters and Walking Patterns Show the Significant Differences Between Parkinson’s Disease and Healthy Participants?. Biosensors, 2019, 9, 59.	2.3	17
24	Is Thermal Imaging a Useful Predictor of the Healing Status of Diabetes-Related Foot Ulcers? A Pilot Study. Journal of Diabetes Science and Technology, 2019, 13, 561-567.	1.3	17
25	Introducing a Novel Layer in Convolutional Neural Network for Automatic Identification of Diabetic Retinopathy. , 2018, 2018, 5938-5941.		16
26	Unspoken Vowel Recognition Using Facial Electromyogram. , 2006, 2006, 2191-4.		15
27	Improvement of isometric dorsiflexion protocol for assessment of tibialis anterior muscle strength. MethodsX, 2015, 2, 107-111.	0.7	14
28	FRACTAL PROPERTIES OF SURFACE ELECTROMYOGRAM FOR CLASSIFICATION OF LOW-LEVEL HAND MOVEMENTS FROM SINGLE-CHANNEL FOREARM MUSCLE ACTIVITY. Journal of Mechanics in Medicine and Biology, 2011, 11, 581-590.	0.3	13
29	Efficiency of Voice Features Based on Consonant for Detection of Parkinson’s Disease. , 2018, , .		13
30	Improved sEMG signal classification using the Twin SVM. , 2016, , .		12
31	Normalised Mutual Information of High-Density Surface Electromyography during Muscle Fatigue. Entropy, 2017, 19, 697.	1.1	12
32	A Real-Time Capable Linear Time Classifier Scheme for Anticipated Hand Movements Recognition from Amputee Subjects Using Surface EMG Signals. Irbm, 2021, 42, 277-293.	3.7	12
33	Fractal theory based Non-linear analysis of sEMG. , 2007, , .		11
34	Testing of motor unit synchronization model for localized muscle fatigue. , 2009, 2009, 360-3.		11
35	A Kinematic Study of Progressive Micrographia in Parkinson’s Disease. Frontiers in Neurology, 2019, 10, 403.	1.1	11
36	A sEMG model with experimentally based simulation parameters. , 2010, 2010, 4258-61.		10

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37	Towards semg classification based on Bayesian and k-NN to control a prosthetic hand. , 2013, , .		10
38	Independence Between Two Channels of Surface Electromyogram Signal to Measure the Loss of Motor Units. Measurement Science Review, 2015, 15, 152-155.	0.6	10
39	Effect of levodopa on handwriting tasks of different complexity in Parkinsonâ€™s disease: a kinematic study. Journal of Neurology, 2019, 266, 1376-1382.	1.8	10
40	Variance of the Gait Parameters and Fraction of Double-Support Interval for Determining the Severity of Parkinsonâ€™s Disease. Applied Sciences (Switzerland), 2020, 10, 577.	1.3	10
41	Changes in decibel scale wavelength properties of EEG with alertness levels while performing sustained attention tasks. , 2009, 2009, 6288-91.		9
42	Kurtosis and negentropy investigation of myo electric signals during different MVCs. , 2011, , .		9
43	Age related changes in the complexity of surface EMG in biceps: A model based study. , 2013, , .		9
44	Outlier removal in facial surface electromyography through Hampel filtering technique. , 2017, , .		9
45	Muscle activation strategies of people with early-stage Parkinsonâ€™s during walking. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 133.	2.4	9
46	Recognition of Facial Movements and Hand Gestures Using Surface Electromyogram(sEMG) for HCI Based Applications. , 2007, , .		8
47	Estimation of Muscle Fatigue during Cyclic Contractions Using Source Separation Techniques. , 2009, , .		8
48	Estimating the progression of muscle fatigue based on dependence between motor units using high density surface electromyogram. , 2016, 2016, 3654-3657.		8
49	Deep Learning Measurement Model to Segment the Nuchal Translucency Region for the Early Identification of Down Syndrome. Measurement Science Review, 2022, 22, 187-192.	0.6	8
50	Visual Speech Recognition Method Using Translation, Scale and Rotation Invariant Features. , 2006, , .		7
51	Classification of voiceless speech using facial muscle activity and vision based techniques. , 2008, , .		7
52	VISUAL SPEECH RECOGNITION USING DYNAMIC FEATURES AND SUPPORT VECTOR MACHINES. International Journal of Image and Graphics, 2008, 08, 419-437.	1.2	7
53	Multi modal gesture identification for HCI using surface EMG. , 2008, , .		7
54	Use of sEMG in identification of low level muscle activities: Features based on ICA and fractal dimension. , 2009, 2009, 364-7.		7

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55	sEMG feature evaluation for identification of elbow angle resolution in graded arm movement. BioMedical Engineering OnLine, 2014, 13, 155.	1.3	7
56	Effect of number of motor units and muscle fibre type on surface electromyogram. Medical and Biological Engineering and Computing, 2016, 54, 575-582.	1.6	7
57	Human-Computer Interface Technologies for the Motor Impaired. , 0, , .		7
58	Limitations and Applications of ICA for Surface Electromyogram. , 2006, 2006, 5739-42.		6
59	Mechanomyogram for identifying muscle activity and fatigue. , 2009, 2009, 408-11.		6
60	Chin EMG analysis for REM sleep behavior disorders. , 2012, , .		6
61	Identifying Noisy Electrodes in High Density Surface Electromyography Recordings Through Analysis of Spatial Similarities. , 2018, 2018, 2325-2328.		6
62	Differences in Levodopa Response for Progressive and Non-Progressive Micrographia in Parkinson's Disease. Frontiers in Neurology, 2021, 12, 665112.	1.1	6
63	Devices for Mobility and Manipulation for People with Reduced Abilities. , 0, , .		6
64	Limitations and Applications of ICA in Facial sEMG and Hand Gesture sEMG for Human Computer Interaction. , 2007, , .		5
65	Fractal feature of sEMG from Flexor digitorum superficialis muscle correlated with levels of contraction during low-level finger flexions. , 2010, 2010, 4614-7.		5
66	Towards classification of low-level finger movements using forearm muscle activation: a comparative study based on ICA and Fractal theory. International Journal of Biomedical Engineering and Technology, 2011, 6, 150.	0.2	5
67	Effect of age and gender on the surface electromyogram during various levels of isometric contraction. , 2011, 2011, 3853-6.		5
68	A model for generating Surface EMG signal of m. Tibialis Anterior. , 2014, 2014, 106-9.		5
69	Measuring complexity in different muscles during sustained contraction using fractal properties of SEMG signal. , 2018, 2018, 5656-5659.		5
70	High-Resolution Spectral Analysis Accurately Identifies the Bacterial Signature in Infected Chronic Foot Ulcers in People With Diabetes. International Journal of Lower Extremity Wounds, 2018, 17, 78-86.	0.6	5
71	Design and validation of MEMS based micro energy harvesting and thermal energy storage device. Materials Research Express, 2019, 6, 115511.	0.8	5
72	Estimation of Parkinson's disease severity from voice features of vowels and consonant. , 2020, 2020, 3666-3669.		5

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73	Title is missing!. Journal of Medical and Biological Engineering, 2012, 32, 405.	1.0	5
74	FEATURES OF sEMG BASED ON SOURCE SEPARATION AND FRACTAL PROPERTIES TO DETECT WRIST MOVEMENTS. Biomedical Engineering - Applications, Basis and Communications, 2010, 22, 293-300.	0.3	4
75	Feature extraction and classification of sEMG signals applied to a virtual hand prosthesis. , 2013, 2013, 1911-4.		4
76	Towards better segmentation of object of interest using histogram equalisation and morphological reconstruction. International Journal of Signal and Imaging Systems Engineering, 2014, 7, 189.	0.6	4
77	A Review of Ultrasound Imaging Techniques for the Detection of Down Syndrome. Irbm, 2020, 41, 115-123.	3.7	4
78	Fractal features based technique to identify subtle forearm movements and to measure alertness using physiological signals (sEMG, EEG). , 2008, , .		3
79	LIMITATIONS AND APPLICATIONS OF ICA FOR SURFACE ELECTROMYOGRAM FOR IDENTIFYING HAND GESTURES. International Journal of Computational Intelligence and Applications, 2008, 07, 281-300.	0.6	3
80	Reliability and variability in facial electromyography for identification of speech and for human computer control: an experimental study. International Journal of Medical Engineering and Informatics, 2011, 3, 311.	0.2	3
81	Surface EMG model of the bicep during aging: A preliminary study. , 2011, 2011, 7127-30.		3
82	Age-Associated Changes in the Spectral and Statistical Parameters of Surface Electromyogram of Tibialis Anterior. BioMed Research International, 2016, 2016, 1-6.	0.9	3
83	Fractal and twin SVM-based handgrip recognition for healthy subjects and trans-radial amputees using myoelectric signal. Biomedizinische Technik, 2016, 61, 87-94.	0.9	3
84	Computing the variations in the self-similar properties of the various gait intervals in Parkinson disease patients. , 2017, 2017, 2434-2437.		3
85	A Non-Invasive IR Sensor Technique to Differentiate Parkinson's Disease from Other Neurological Disorders Using Autonomic Dysfunction as Diagnostic Criterion. Sensors, 2022, 22, 266.	2.1	3
86	Fusion of multiscale wavelet-based fractal analysis on retina image for stroke prediction. , 2010, 2010, 4308-11.		2
87	Capture protocol of forearm sEMG signals with four channels in healthy and amputee people. , 2012, , .		2
88	Age-related motor unit remodeling in the Tibialis Anterior. , 2015, 2015, 6090-3.		2
89	Effect of age on changes in motor units functional connectivity. , 2015, 2015, 2900-3.		2
90	Non-invasive detection of the freezing of gait in Parkinson's disease using spectral and wavelet features. , 2016, 2016, 876-879.		2

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91	RECOGNITION OF FINGER/HAND GRIP MECHANISM BY COMPUTING S-TRANSFORM FEATURES OF SURFACE ELECTROMYOGRAM SIGNAL FROM HEALTHY AND AMPUTEE. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650076.	0.3	2
92	A computational model to investigate the effect of pennation angle on surface electromyogram of Tibialis Anterior. PLoS ONE, 2017, 12, e0189036.	1.1	2
93	Computational model to investigate the relative contributions of different neuromuscular properties of tibialis anterior on force generated during ankle dorsiflexion. Medical and Biological Engineering and Computing, 2018, 56, 1413-1423.	1.6	2
94	Pupillometric recordings to detect glaucoma. Physiological Measurement, 2021, 42, 045003.	1.2	2
95	Segmenting and Classifying MRI Multimodal Images Using Cuckoo Search Optimization and KNN Classifier. IETE Journal of Research, 2023, 69, 3946-3953.	1.8	2
96	Title is missing!. Journal of Medical and Biological Engineering, 2010, 30, 367.	1.0	2
97	Investigation of Formalin-Fixed Tissue Optical Characteristics in the Range of 200â€“500â€“GHz Using Pulsed Terahertz Reflection Spectroscopy to Differentiate Oral Malignant, Benign, and Cyst. Journal of Spectroscopy, 2022, 2022, 1-10.	0.6	2
98	Complexity Analysis in the PR, QT, RR and ST Segments of ECG for Early Assessment of Severity in Cardiac Autonomic Neuropathy. Applied Sciences (Switzerland), 2022, 12, 5746.	1.3	2
99	Reliability of facial muscle activity to identify vowel utterance. , 2008, , .		1
100	INDEPENDENT COMPONENT APPROACH TO THE ANALYSIS OF HAND GESTURE sEMG AND FACIAL sEMG. Biomedical Engineering - Applications, Basis and Communications, 2008, 20, 83-93.	0.3	1
101	Observing exercise induced heart rate variability response. , 2011, , .		1
102	Spectral properties of surface EMG and muscle conduction velocity: A study based on sEMG model. , 2011, , .		1
103	Fractal based complexity measure and variation in force during sustained isometric muscle contraction: Effect of aging. , 2012, 2012, 3484-7.		1
104	Investigation of age and gender related changes in force of isometric contraction, muscle endurance and muscle strength among young and old healthy people. , 2012, , .		1
105	Class specific dynamic feature selection technique — Towards human movement based biometrics application. , 2013, , .		1
106	Surface EMG model for Tibialis Anterior muscle with experimentally based simulation parameters. , 2014, , .		1
107	Spectral properties of surface electromyogram signal and change in muscle conduction velocity during isometric muscle contraction. Signal, Image and Video Processing, 2015, 9, 261-266.	1.7	1
108	Fractals and Electromyograms. Springer Series in Computational Neuroscience, 2016, , 445-455.	0.3	1

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109	Measuring the interactions between different locations in a muscle to monitor localized muscle fatigue. , 2017, 2017, 3461-3464.		1
110	Comparative Analysis of Parameter Estimation Techniques for Modelling a Twin Rotor MIMO System. , 2019, , .		1
111	Normalized Mutual Information of phonetic sound to distinguish the speech of Parkinsonâ€™s disease. , 2019, 2019, 3523-3526.		1
112	Implementation and experimental validation of surface electromyogram and force model of Tibialis Anterior muscle for examining muscular factors. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 200-209.	1.0	1
113	Identification and Segmentation of Nuchal translucency region during the early stages of gestation using chan-ve-se segmentation. , 2021, , .		1
114	Recognition of Human Voice Utterances from Facial Surface EMG without Using Audio Signals. Lecture Notes in Business Information Processing, 2008, , 366-378.	0.8	1
115	Facial Muscle Activity Patterns for Recognition of Utterances in Native and Foreign Language. Advances in Computational Intelligence and Robotics Book Series, 2012, , 212-231.	0.4	1
116	Estimation of alertness levels with changes in decibel scale wavelength of EEG during dual-task simulation of auditory sonar target detection. , 2010, 2010, 4444-7.		0
117	Measure of increase in motor unit synchronisation for young and old using sEMG. , 2012, , .		0
118	Impact of vibration on the muscle endurance and fatigue during strengthening exercise. , 2012, , .		0
119	Towards better real-time control of smart wheelchair using subtle finger movements via wireless (blue-tooth) interface. , 2012, , .		0
120	Investigation and analysis of low frequency of electromyogram during isometric contraction. , 2013, , .		0
121	Real-time control of finger and wrist movements in a virtual hand using traditional features of semg and Bayesian classifier. , 2013, , .		0
122	Computation and study of the low-frequency oscillation of surface electromyogram recorded in biceps during isometric upper limb contraction. , 2013, 2013, 2128-31.		0
123	Motor Unit Synchronization as a Measure of Localized Muscle Fatigue. International Journal of Biomedical and Clinical Engineering, 2013, 2, 39-49.	0.2	0
124	Impact of vibration on the muscle endurance and fatigue during strengthening exercise. International Journal of Medical Engineering and Informatics, 2015, 7, 167.	0.2	0
125	Age related neuromuscular changes in sEMG of m. Tibialis Anterior using higher order statistics (Gaussianity & linearity test). , 2016, 2016, 3638-3641.		0
126	Difference in age-related changes in surface electromyogram of tibialis anterior and triceps surae. Biomedical Physics and Engineering Express, 2016, 2, 045019.	0.6	0

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127	Effect of toe extension on EMG of triceps surae muscles during isometric dorsiflexion. Biomedizinische Technik, 2016, 61, 607-610.	0.9	0
128	Differentiating between Parkinsonâ€™s disease patients and controls using variability in muscle activation during walking. , 2020, 2020, 3158-3161.		0
129	Spatial Intensity Map of HDEMG Based Classification of Muscle Fatigue. Studies in Health Technology and Informatics, 2021, 281, 508-509.	0.2	0
130	Diagnosis of Parkinson Disease: Imaging and Non-Imaging Techniques. Series in Bioengineering, 2022, , 61-78.	0.3	0
131	Inertial Measurement Units for Gait Analysis of Parkinsonâ€™s Disease Patients. Series in Bioengineering, 2022, , 79-104.	0.3	0
132	Nuchal Translucency Thickness Measurement in Fetal Ultrasound Images to Analyze Down Syndrome. IETE Journal of Research, 0, , 1-11.	1.8	0
133	ICA as Pattern Recognition Technique for Gesture Identification. Advances in Computational Intelligence and Robotics Book Series, 2012, , 367-387.	0.4	0
134	Evaluating Video and Facial Muscle Activity for a Better Assistive Technology: A Silent Speech Based HCI. Intelligent Systems Reference Library, 2014, , 89-104.	1.0	0
135	Design and Development of a Smart Eye Wearable for the Visually Impaired. Communications in Computer and Information Science, 2020, , 208-221.	0.4	0
136	Virtual Reality-Based Driving Simulator for Testing Innovative Hybrid Automotive Powertrains. Advances in Intelligent Systems and Computing, 2020, , 415-424.	0.5	0
137	ICA as Pattern Recognition Technique for Gesture Identification. , 0, , 530-549.		0
138	Facial Muscle Activity Patterns for Recognition of Utterances in Native and Foreign Language. , 0, , 1462-1480.		0
139	Estimation of Severity in Parkinsonâ€™s Disease Using Acoustic Features of Phonatory Tasks. IETE Journal of Research, 2023, 69, 6292-6303.	1.8	0
140	Unspoken Vowel Recognition Using Facial Electromyogram. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
141	A Review of Spectroscopic and Non-Spectroscopic Techniques for Diagnosing Breast Cancer. Current Medical Imaging, 2022, 18, .	0.4	0