

Sridhar P. Arjunan

List of Publications by Year in descending order

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141
papers

1,309
citations

430442

18
h-index

500791

28
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142
all docs

142
docs citations

142
times ranked

1310
citing authors

#	ARTICLE	IF	CITATIONS
1	Segmenting and Classifying MRI Multimodal Images Using Cuckoo Search Optimization and KNN Classifier. IETE Journal of Research, 2023, 69, 3946-3953.	1.8	2
2	Estimation of Severity in Parkinsonâ€™s Disease Using Acoustic Features of Phonatory Tasks. IETE Journal of Research, 2023, 69, 6292-6303.	1.8	0
3	Diagnosis of Parkinson Disease: Imaging and Non-Imaging Techniques. Series in Bioengineering, 2022, , 61-78.	0.3	0
4	Inertial Measurement Units for Gait Analysis of Parkinsonâ€™s Disease Patients. Series in Bioengineering, 2022, , 79-104.	0.3	0
5	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
6	A Non-Invasive IR Sensor Technique to Differentiate Parkinsonâ€™s Disease from Other Neurological Disorders Using Autonomic Dysfunction as Diagnostic Criterion. Sensors, 2022, 22, 266.	2.1	3
7	A Review of Spectroscopic and Non-Spectroscopic Techniques for Diagnosing Breast Cancer. Current Medical Imaging, 2022, 18, .	0.4	0
8	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
9	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
10	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
11	Pupillometric recordings to detect glaucoma. Physiological Measurement, 2021, 42, 045003.	1.2	2
12	Differences in Levodopa Response for Progressive and Non-Progressive Micrographia in Parkinson's Disease. Frontiers in Neurology, 2021, 12, 665112.	1.1	6
13	Spatial Intensity Map of HDEMG Based Classification of Muscle Fatigue. Studies in Health Technology and Informatics, 2021, 281, 508-509.	0.2	0
14	Muscle activation strategies of people with early-stage Parkinsonâ€™s during walking. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 133.	2.4	9
15	Identification and Segmentation of Nuchal translucency region during the early stages of gestation using chan-verse segmentation. , 2021, , .		1
16	A Review of Ultrasound Imaging Techniques for the Detection of Down Syndrome. Irbm, 2020, 41, 115-123.	3.7	4
17	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
18	Estimation of Parkinsonâ€™s disease severity from voice features of vowels and consonant. , 2020, 2020, 3666-3669.		5

#	ARTICLE	IF	CITATIONS
19	Locomo-Net: A Low -Complex Deep Learning Framework for sEMG-Based Hand Movement Recognition for Prosthetic Control. IEEE Journal of Translational Engineering in Health and Medicine, 2020, 8, 1-12.	2.2	38
20	Differentiating between Parkinsonâ€™s disease patients and controls using variability in muscle activation during walking. , 2020, 2020, 3158-3161.		0
21	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
22	Complexity Measures of Voice Recordings as a Discriminative Tool for Parkinsonâ€™s Disease. Biosensors, 2020, 10, 1.	2.3	25
23	Design and Development of a Smart Eye Wearable for the Visually Impaired. Communications in Computer and Information Science, 2020, , 208-221.	0.4	0
24	Virtual Reality-Based Driving Simulator for Testing Innovative Hybrid Automotive Powertrains. Advances in Intelligent Systems and Computing, 2020, , 415-424.	0.5	0
25	Prosthetic hand control: A multidisciplinary review to identify strengths, shortcomings, and the future. Biomedical Signal Processing and Control, 2019, 53, 101588.	3.5	41
26	Design and validation of MEMS based micro energy harvesting and thermal energy storage device. Materials Research Express, 2019, 6, 115511.	0.8	5
27	Which Gait Parameters and Walking Patterns Show the Significant Differences Between Parkinsonâ€™s Disease and Healthy Participants?. Biosensors, 2019, 9, 59.	2.3	17
28	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
29	A Kinematic Study of Progressive Micrographia in Parkinson's Disease. Frontiers in Neurology, 2019, 10, 403.	1.1	11
30	Comparative Analysis of Parameter Estimation Techniques for Modelling a Twin Rotor MIMO System. , 2019, , .		1
31	Normalized Mutual Information of phonetic sound to distinguish the speech of Parkinsonâ€™s disease. , 2019, 2019, 3523-3526.		1
32	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
33	An ICA-EBM-Based sEMG Classifier for Recognizing Lower Limb Movements in Individuals With and Without Knee Pathology. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 675-686.	2.7	55
34	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
35	Efficacy of Guided Spiral Drawing in the Classification of Parkinson's Disease. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1648-1652.	3.9	59
36	Identifying Noisy Electrodes in High Density Surface Electromyography Recordings Through Analysis of Spatial Similarities. , 2018, 2018, 2325-2328.		6

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37	Introducing a Novel Layer in Convolutional Neural Network for Automatic Identification of Diabetic Retinopathy. , 2018, 2018, 5938-5941.		16
38	Efficiency of Voice Features Based on Consonant for Detection of Parkinson's Disease. , 2018, , .		13
39	Measuring complexity in different muscles during sustained contraction using fractal properties of SEMG signal. , 2018, 2018, 5656-5659.		5
40	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
41	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
42	Outlier removal in facial surface electromyography through Hampel filtering technique. , 2017, , .		9
43	Computing the variations in the self-similar properties of the various gait intervals in Parkinson disease patients. , 2017, 2017, 2434-2437.		3
44	Measuring the interactions between different locations in a muscle to monitor localized muscle fatigue. , 2017, 2017, 3461-3464.		1
45	Normalised Mutual Information of High-Density Surface Electromyography during Muscle Fatigue. Entropy, 2017, 19, 697.	1.1	12
46	Distinguishing Different Stages of Parkinson's Disease Using Composite Index of Speed and Pen-Pressure of Sketching a Spiral. Frontiers in Neurology, 2017, 8, 435.	1.1	91
47	A computational model to investigate the effect of pennation angle on surface electromyogram of Tibialis Anterior. PLoS ONE, 2017, 12, e0189036.	1.1	2
48	Development of Health Parameter Model for Risk Prediction of CVD Using SVM. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-7.	0.7	41
49	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
50	Age related neuromuscular changes in sEMG of m. Tibialis Anterior using higher order statistics (Gaussianity & linearity test). , 2016, 2016, 3638-3641.		0
51	Improved sEMG signal classification using the Twin SVM. , 2016, , .		12
52	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
53	Non-invasive detection of the freezing of gait in Parkinson's disease using spectral and wavelet features. , 2016, 2016, 876-879.		2
54	Fractals and Electromyograms. Springer Series in Computational Neuroscience, 2016, , 445-455.	0.3	1

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55	Estimating the progression of muscle fatigue based on dependence between motor units using high density surface electromyogram. , 2016, 2016, 3654-3657.		8
56	Effect of toe extension on EMG of triceps surae muscles during isometric dorsiflexion. Biomedizinische Technik, 2016, 61, 607-610.	0.9	0
57	RECOGNITION OF FINGER/HAND GRIP MECHANISM BY COMPUTING S-TURNFORM FEATURES OF SURFACE ELECTROMYOGRAM SIGNAL FROM HEALTHY AND AMPUTEES. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650076.	0.3	2
58	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
59	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
60	Age-related motor unit remodeling in the Tibialis Anterior. , 2015, 2015, 6090-3.		2
61	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
62	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
63	Effect of age on changes in motor units functional connectivity. , 2015, 2015, 2900-3.		2
64	Selection of suitable hand gestures for reliable myoelectric human computer interface. BioMedical Engineering OnLine, 2015, 14, 30.	1.3	25
65	Improvement of isometric dorsiflexion protocol for assessment of tibialis anterior muscle strength. MethodsX, 2015, 2, 107-111.	0.7	14
66	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
67	A model for generating Surface EMG signal of m. Tibialis Anterior. , 2014, 2014, 106-9.		5
68	Computation of fractal features based on the fractal analysis of surface Electromyogram to estimate force of contraction of different muscles. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 210-216.	0.9	21
69	Computation and Evaluation of Features of Surface Electromyogram to Identify the Force of Muscle Contraction and Muscle Fatigue. BioMed Research International, 2014, 2014, 1-6.	0.9	32
70	sEMG feature evaluation for identification of elbow angle resolution in graded arm movement. BioMedical Engineering OnLine, 2014, 13, 155.	1.3	7
71	Surface EMG model for Tibialis Anterior muscle with experimentally based simulation parameters. , 2014, , .		1
72	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

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73	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
74	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
75	Age related changes in the complexity of surface EMG in biceps: A model based study. , 2013, , .		9
76	Investigation and analysis of low frequency of electromyogram during isometric contraction. , 2013, , .		0
77	Real-time control of finger and wrist movements in a virtual hand using traditional features of semg and Bayesian classifier. , 2013, , .		0
78	Towards semg classification based on Bayesian and k-NN to control a prosthetic hand. , 2013, , .		10
79	Class specific dynamic feature selection technique — Towards human movement based biometrics application. , 2013, , .		1
80	Feature extraction and classification of sEMG signals applied to a virtual hand prosthesis. , 2013, 2013, 1911-4.		4
81	Computation and study of the low-frequency oscillation of surface electromyogram recorded in biceps during isometric upper limb contraction. , 2013, 2013, 2128-31.		0
82	Age-associated changes in muscle activity during isometric contraction. Muscle and Nerve, 2013, 47, 545-549.	1.0	22
83	Motor Unit Synchronization as a Measure of Localized Muscle Fatigue. International Journal of Biomedical and Clinical Engineering, 2013, 2, 39-49.	0.2	0
84	Fractal based complexity measure and variation in force during sustained isometric muscle contraction: Effect of aging. , 2012, 2012, 3484-7.		1
85	Capture protocol of forearm sEMG signals with four channels in healthy and amputee people. , 2012, , .		2
86	Chin EMG analysis for REM sleep behavior disorders. , 2012, , .		6
87	Measure of increase in motor unit synchronisation for young and old using sEMG. , 2012, , .		0
88	Impact of vibration on the muscle endurance and fatigue during strengthening exercise. , 2012, , .		0
89	Towards better real-time control of smart wheelchair using subtle finger movements via wireless (blue-tooth) interface. , 2012, , .		0
90	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

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91	Evaluation of feature extraction techniques in emotional state recognition. , 2012, , .		50
92	Title is missing!. Journal of Medical and Biological Engineering, 2012, 32, 405.	1.0	5
93	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
94	ICA as Pattern Recognition Technique for Gesture Identification. Advances in Computational Intelligence and Robotics Book Series, 2012, , 367-387.	0.4	0
95	Kurtosis and negentropy investigation of myo electric signals during different MVCs. , 2011, , .		9
96	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
97	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
98	Measuring Increase in Synchronization to Identify Muscle Endurance Limit. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 578-587.	2.7	35
99	Applications of ICA and fractal dimension in sEMG signal processing for subtle movement analysis: a review. Australasian Physical and Engineering Sciences in Medicine, 2011, 34, 179-193.	1.4	30
100	Observing exercise induced heart rate variability response. , 2011, , .		1
101	Effect of age and gender on the surface electromyogram during various levels of isometric contraction. , 2011, 2011, 3853-6.		5
102	Spectral properties of surface EMG and muscle conduction velocity: A study based on sEMG model. , 2011, , .		1
103	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
104	Surface EMG model of the bicep during aging: A preliminary study. , 2011, 2011, 7127-30.		3
105	Decoding subtle forearm flexions using fractal features of surface electromyogram from single and multiple sensors. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 53.	2.4	68
106	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
107	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
108	A machine learning based method for classification of fractal features of forearm sEMG using Twin Support vector machines. , 2010, 2010, 4821-4.		17

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109	A sEMG model with experimentally based simulation parameters. , 2010, 2010, 4258-61.		10
110	Fusion of multiscale wavelet-based fractal analysis on retina image for stroke prediction. , 2010, 2010, 4308-11.		2
111	Fractal feature of sEMG from Flexor digitorum superficialis muscle correlated with levels of contraction during low-level finger flexions. , 2010, 2010, 4614-7.		5
112	Pattern classification of Myo-Electrical signal during different Maximum Voluntary Contractions: A study using BSS techniques. Measurement Science Review, 2010, 10, 1-6.	0.6	28
113	Title is missing!. Journal of Medical and Biological Engineering, 2010, 30, 367.	1.0	2
114	Use of sEMG in identification of low level muscle activities: Features based on ICA and fractal dimension. , 2009, 2009, 364-7.		7
115	Changes in decibel scale wavelength properties of EEG with alertness levels while performing sustained attention tasks. , 2009, 2009, 6288-91.		9
116	Testing of motor unit synchronization model for localized muscle fatigue. , 2009, 2009, 360-3.		11
117	Mechanomyogram for identifying muscle activity and fatigue. , 2009, 2009, 408-11.		6
118	Estimation of Muscle Fatigue during Cyclic Contractions Using Source Separation Techniques. , 2009, , .		8
119	Classification of voiceless speech using facial muscle activity and vision based techniques. , 2008, , .		7
120	Reliability of facial muscle activity to identify vowel utterance. , 2008, , .		1
121	Fractal features based technique to identify subtle forearm movements and to measure alertness using physiological signals (sEMG, EEG). , 2008, , .		3
122	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
123	VISUAL SPEECH RECOGNITION USING DYNAMIC FEATURES AND SUPPORT VECTOR MACHINES. International Journal of Image and Graphics, 2008, 08, 419-437.	1.2	7
124	Multi modal gesture identification for HCI using surface EMG. , 2008, , .		7
125	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
126	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

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127	Fractal theory based Non-linear analysis of sEMG. , 2007, , .		11
128	Recognition of Facial Movements and Hand Gestures Using Surface Electromyogram(sEMG) for HCI Based Applications. , 2007, , .		8
129	Limitations and Applications of ICA in Facial sEMG and Hand Gesture sEMG for Human Computer Interaction. , 2007, , .		5
130	Fractal Based Modelling and Analysis of Electromyography (EMG) To Identify Subtle Actions. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1961-4.	0.5	27
131	Visual recognition of speech consonants using facial movement features. Integrated Computer-Aided Engineering, 2007, 14, 49-61.	2.5	20
132	Unspoken Vowel Recognition Using Facial Electromyogram. , 2006, 2006, 2191-4.		15
133	Visual Speech Recognition Method Using Translation, Scale and Rotation Invariant Features. , 2006, , .		7
134	Limitations and Applications of ICA for Surface Electromyogram. , 2006, 2006, 5739-42.		6
135	Unspoken Vowel Recognition Using Facial Electromyogram. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
136	Visual Speech Recognition Using Image Moments and Multiresolution Wavelet Images. , 0, , .		20
137	Nuchal Translucency Thickness Measurement in Fetal Ultrasound Images to Analyze Down Syndrome. IETE Journal of Research, 0, , 1-11.	1.8	0
138	Devices for Mobility and Manipulation for People with Reduced Abilities. , 0, , .		6
139	Human-Computer Interface Technologies for the Motor Impaired. , 0, , .		7
140	ICA as Pattern Recognition Technique for Gesture Identification. , 0, , 530-549.		0
141	Facial Muscle Activity Patterns for Recognition of Utterances in Native and Foreign Language. , 0, , 1462-1480.		0