Madhuchhanda Mitra

List of Publications by Year in Descending Order

74 papers	1,214 citations	17 h-index	34 g-index
83 ext. papers	1,528 ext. citations	2.6 avg, IF	5.05 L-index

#	Paper	IF	Citations
74	Effortless detection of premature ventricular contraction using computerized analysis of photoplethysmography signal. *Sadhana - Academy Proceedings in Engineering Sciences*, **2022**, 47, 1	1	0
73	Median Filter Based Noise Reduction and QRS Detection in ECG Signal. *Lecture Notes in Electrical Engineering*, **2022**, 67-76	0.2	
72	Automatic identification of asthma from ECG derived respiration using complete ensemble empirical mode decomposition with adaptive noise and principal component analysis. *Biomedical Signal Processing and Control*, **2022**, 77, 103716	4.9	
71	Deep learning approach of murmur detection using Cochleagram. *Biomedical Signal Processing and Control*, **2022**, 77, 103747	4.9	0
70	Healthcare Automation System by Using Cloud-Based Telemonitoring Technique for Cardiovascular Disease Classification **2021**, 474-493		
69	A Robust PPG Onset and Systolic Peak Detection Algorithm Based On Hilbert Transform **2020**,		3
68	Healthcare Automation System by Using Cloud-Based Telemonitoring Technique for Cardiovascular Disease Classification. *International Journal of Web-Based Learning and Teaching Technologies*, **2020**, 15, 46-63	0.9	
67	Automated myocardial infarction identification based on interbeat variability analysis of the photoplethysmographic data. *Biomedical Signal Processing and Control*, **2020**, 57, 101747	4.9	5
66	Acoustic feature based unsupervised approach of heart sound event detection. *Computers in Biology and Medicine*, **2020**, 126, 103990	7	5
65	PPG-BASED AUTOMATED ESTIMATION OF BLOOD PRESSURE USING PATIENT-SPECIFIC NEURAL NETWORK MODELING. *Journal of Mechanics in Medicine and Biology*, **2020**, 20, 2050037	0.7	3
64	Automated Screening of Myocardial Infarction Based on Statistical Analysis of Photoplethysmographic Data. *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 2881-2890	5.3	2
63	An Automated Algorithm to Extract Time Plane Features From the PPG Signal and its Derivatives for Personal Health Monitoring Application. *IETE Journal of Research*, **2019**, 1-13	0.9	7
62	Supervised model for Cochleagram feature based fundamental heart sound identification. *Biomedical Signal Processing and Control*, **2019**, 52, 32-40	4.9	12
61	A novel approach towards non-obstructive detection and classification of COPD using ECG derived respiration. *Australasian Physical and Engineering Sciences in Medicine*, **2019**, 42, 1011-1024	1.9	5
60	Automated Identification of Myocardial Infarction Using a Single Vectorcardiographic Feature. *Advances in Intelligent Systems and Computing*, **2019**, 641-651	0.4	
59	Adaptive Band Limit Estimation based PPG data compression for portable home monitors. *Measurement: Journal of the International Measurement Confederation*, **2019**, 134, 153-165	4.6	5
58	Automated Identification of Myocardial Infarction Using Harmonic Phase Distribution Pattern of ECG Data. *IEEE Transactions on Instrumentation and Measurement*, **2018**, 67, 2303-2313	5.2	49

57	PPG Noise Reduction based on Adaptive Frequency Suppression using Discrete Fourier Transform for Portable Home Monitoring Applications **2018**,		2
56	Arduino-based noise robust online heart-rate detection. *Journal of Medical Engineering and Technology*, **2017**, 41, 170-178	1.8	5
55	Characterization of cardiac arrhythmias by variational mode decomposition technique. *Biocybernetics and Biomedical Engineering*, **2017**, 37, 578-589	5.7	11
54	Biometric analysis using fused feature set from side face texture and electrocardiogram. *IET Science, Measurement and Technology*, **2017**, 11, 226-233	1.5	4
53	Automated ECG analysis usingFourier harmonic phase **2017**,		3
52	Characterizing Atrial Fibrillation in Empirical Mode Decomposition Domain. *Journal of Medical and Biological Engineering*, **2016**, 36, 693-703	2.2	4
51	Automated feature extraction of ECG signal by position-index searching method **2016**,		1
50	Broken Rotor Bar. *Power Systems*, **2016**, 57-78	0.4	
49	Rotor Mass Unbalance. *Power Systems*, **2016**, 79-104	0.4	
48	Single Phasing of an Induction Motor. *Power Systems*, **2016**, 137-146	0.4	
47	Crawling of an Induction Motor. *Power Systems*, **2016**, 147-151	0.4	
46	Real time heart rate detection from PPG signal in noisy environment **2016**,		7
45	Induction Motor Fault Diagnosis: General Discussion and Research Scope. *Power Systems*, **2016**, 153-158	0.4	2
44	Imposed target based modification of Taguchi method for feature optimisation with application in arrhythmia beat detection. *Expert Systems With Applications*, **2016**, 56, 268-281	7.8	9
43	Analytical Tools for Motor Fault Diagnosis. *Power Systems*, **2016**, 29-55	0.4	5
42	Significance of Exhaled Breath Test in Clinical Diagnosis: A Special Focus on the Detection of Diabetes Mellitus. *Journal of Medical and Biological Engineering*, **2016**, 36, 605-624	2.2	65
41	Electrocardiogram data compression using adaptive bit encoding of the discrete Fourier transforms coefficients. *IET Science, Measurement and Technology*, **2015**, 9, 866-874	1.5	12
40	2D Screening Length in Ultrathin Films Under Intense Electric Field. *Journal of Computational and Theoretical Nanoscience*, **2015**, 12, 1898-1910	0.3	4

39	A combined application of lossless and lossy compression in ECG processing and transmission via GSM-based SMS. *Journal of Medical Engineering and Technology*, **2015**, 39, 105-22	1.8	6
38	DSP implementation of a novel envelope analysis approach for the diagnosis of broken rotor bar in induction motor. *International Journal of Modelling, Identification and Control*, **2014**, 22, 275	0.6	1
37	ECG noise reduction using Fourier coefficient suppression **2014**,		8
36	ECG Acquisition and Automated Remote Processing **2014**,		36
35	ECG Signal Analysis **2014**, 15-49		0
34	Novel approach for detection of inter-turn short circuit of induction motoras stator winding through envelope analysis **2014**,		1
33	Application of Cross Wavelet Transform for ECG Pattern Analysis and Classification. *IEEE Transactions on Instrumentation and Measurement*, **2014**, 63, 326-333	5.2	184
32	ECG Transmission **2014**, 73-94		
31	ECG beat classification based on discrete wavelet transformation and nearest neighbour classifier. *Journal of Medical Engineering and Technology*, **2013**, 37, 264-72	1.8	11
30	ECG signal compression using ASCII character encoding and transmission via SMS. *Biomedical Signal Processing and Control*, **2013**, 8, 354-363	4.9	28
29	Detection of Induction Motor Broken Bar Fault Through Envelope Analysis Using Start-Up Current. *Procedia Technology*, **2012**, 4, 646-651		12
28	R-Peak Detection Algorithm for Ecg using Double Difference And RR Interval Processing. *Procedia Technology*, **2012**, 4, 873-877		43
27	Detection of ECG characteristic features using slope thresholding and relative magnitude comparison **2012**,		7
26	Increasing the accuracy of ECG based biometric analysis by data modelling. *Measurement: Journal of the International Measurement Confederation*, **2012**, 45, 1927-1932	4.6	21
25	Empirical mode decomposition based ECG enhancement and QRS detection. *Computers in Biology and Medicine*, **2012**, 42, 83-92	7	169
24	Symmetrical components and current Concordia based assessment of single phasing of an induction motor by feature pattern extraction method and radar analysis. *International Journal of Electrical Power and Energy Systems*, **2012**, 37, 43-49	5.1	11
23	A bi-phase enabled serial acquisition system for remote processing of digitized ECG. *Computers and Electrical Engineering*, **2012**, 38, 68-74	4.3	5
22	An intelligent telecardiology system for offline wireless transmission and remote analysis of ECG. *Journal of Medical Engineering and Technology*, **2012**, 36, 358-65	1.8	9

21	ECG feature extraction using differentiation, Hilbert transform, variable threshold and slope reversal approach. *Journal of Medical Engineering and Technology*, **2012**, 36, 372-86	1.8	13
20	Electrocardiogram compression technique for global system of mobile-based offline telecardiology application for rural clinics in India. *IET Science, Measurement and Technology*, **2012**, 6, 412	1.5	15
19	Assessment of crawling of an induction motor by stator current Concordia analysis. *Electronics Letters*, **2012**, 48, 841	1.1	6
18	QRS complex identification using Hilbert transform, variable threshold and slope reversal approach. *International Journal of Biomedical Engineering and Technology*, **2012**, 9, 301	1.3	17
17	ECG based biometric authentication-a novel data modelling approach **2011**,		3
16	A classification approach for myocardial infarction using voltage features extracted from four standard ECG leads **2011**,		3
15	A statistical approach for determination of time plane features from digitized ECG. *Computers in Biology and Medicine*, **2011**, 41, 278-84	7	28
14	A lossless ECG data compression technique using ASCII character encoding. *Computers and Electrical Engineering*, **2011**, 37, 486-497	4.3	39
13	Electric Power Quality. *Power Systems*, **2011**,	0.4	52
12	Harmonics Assessment by FPEM in Clarke and Park Planes. *Power Systems*, **2011**, 97-106	0.4	
11	Unbalance Assessment Using Feature Pattern Extraction Method. *Power Systems*, **2011**, 63-75	0.4	
10	ECG feature extraction and classification of anteroseptal myocardial infarction and normal subjects using discrete wavelet transform **2010**,		17
9	QRS Complex detection using Empirical Mode Decomposition based windowing technique **2010**,		3
8	Detection of ECG characteristic points using Multiresolution Wavelet Analysis based Selective Coefficient Method. *Measurement: Journal of the International Measurement Confederation*, **2010**, 43, 255-261	4.6	92
7	Development of a State-of-the-Art ECG DAS for Storing, Processing and Analysis Using MATLAB-Based GUI and Microprocessor **2009**,		2
6	ECG Feature Extraction by Multi Resolution Wavelet Analysis based Selective Coefficient Method. *IFMBE Proceedings*, **2009**, 590-593	0.2	2
5	Pattern defined heuristic rules and directional histogram based online ECG parameter extraction. *Measurement: Journal of the International Measurement Confederation*, **2009**, 42, 150-156	4.6	19
4	Power quality assessment in V-V, Clarke and Park domain **2007**,		2

3	A Rough-Set-Based Inference Engine for ECG Classification. *IEEE Transactions on Instrumentation and Measurement*, **2006**, 55, 2198-2206	5.2	97
2	Generation of digital time database from paper ECG records and Fourier transform-based analysis for disease identification. *Computers in Biology and Medicine*, **2004**, 34, 551-60	7	18
1	EEG Based Automated Detection of Six Different Eye Movement Conditions for Implementation in Personal Assistive Application. *Wireless Personal Communications*,1	1.9	0