

Goutam Saha

List of Publications by Year in descending order

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Version: 2024-02-01

130
papers

2,710
citations

218381

26
h-index

223531

46
g-index

134
all docs

134
docs citations

134
times ranked

2341
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Design, analysis and experimental evaluation of block based transformation in MFCC computation for speaker recognition. <i>Speech Communication</i> , 2012, 54, 543-565. | 1.6 | 382 |
| 2 | Fetal ECG extraction from single-channel maternal ECG using singular value decomposition. <i>IEEE Transactions on Biomedical Engineering</i> , 1997, 44, 51-59. | 2.5 | 264 |
| 3 | Detection of cardiac abnormality from PCG signal using LMS based least square SVM classifier. <i>Expert Systems With Applications</i> , 2010, 37, 8019-8026. | 4.4 | 133 |
| 4 | Lung sound classification using cepstral-based statistical features. <i>Computers in Biology and Medicine</i> , 2016, 75, 118-129. | 3.9 | 130 |
| 5 | Classification of emotions induced by music videos and correlation with participantsâ€™ rating. <i>Expert Systems With Applications</i> , 2014, 41, 6057-6065. | 4.4 | 79 |
| 6 | Speaker verification with short utterances: a review of challenges, trends and opportunities. <i>IET Biometrics</i> , 2018, 7, 91-101. | 1.6 | 68 |
| 7 | Single resistive sensor for selective detection of multiple VOCs employing SnO ₂ hollowspheres and machine learning algorithm: A proof of concept. <i>Sensors and Actuators B: Chemical</i> , 2020, 321, 128484. | 4.0 | 66 |
| 8 | A Novel Windowing Technique for Efficient Computation of MFCC for Speaker Recognition. <i>IEEE Signal Processing Letters</i> , 2013, 20, 149-152. | 2.1 | 65 |
| 9 | Numerical analysis of the heat transfer behaviour of water based Al ₂ O ₃ and TiO ₂ nanofluids in a circular pipe under the turbulent flow condition. <i>International Communications in Heat and Mass Transfer</i> , 2014, 56, 96-108. | 2.9 | 65 |
| 10 | Spectral Features for Synthetic Speech Detection. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2017, 11, 605-617. | 7.3 | 53 |
| 11 | Multichannel lung sound analysis for asthma detection. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 159, 111-123. | 2.6 | 50 |
| 12 | Overview of BTAS 2016 speaker anti-spoofing competition. , 2016, , . | | 45 |
| 13 | Feature selection using singular value decomposition and QR factorization with column pivoting for text-independent speaker identification. <i>Speech Communication</i> , 2010, 52, 693-709. | 1.6 | 44 |
| 14 | Robust method for periodicity detection and characterization of irregular cyclical series in terms of embedded periodic components. <i>Physical Review E</i> , 1999, 59, 4013-4025. | 0.8 | 43 |
| 15 | Influence of music liking on EEG based emotion recognition. <i>Biomedical Signal Processing and Control</i> , 2021, 64, 102251. | 3.5 | 43 |
| 16 | In search of an optimization technique for Artificial Neural Network to classify abnormal heart sounds. <i>Applied Soft Computing Journal</i> , 2009, 9, 330-340. | 4.1 | 41 |
| 17 | A robust heart sound segmentation algorithm for commonly occurring heart valve diseases. <i>Journal of Medical Engineering and Technology</i> , 2008, 32, 456-465. | 0.8 | 40 |
| 18 | Classification of coronary artery diseased and normal subjects using multi-channel phonocardiogram signal. <i>Biocybernetics and Biomedical Engineering</i> , 2019, 39, 426-443. | 3.3 | 40 |

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|----|--|-----|-----------|
| 19 | Detection of Lungs Status Using Morphological Complexities of Respiratory Sounds. Scientific World Journal, The, 2014, 2014, 1-9. | 0.8 | 39 |
| 20 | Investigating long-range correlation properties in EEG during complex cognitive tasks. Chaos, Solitons and Fractals, 2009, 42, 2067-2073. | 2.5 | 37 |
| 21 | Synthetic speech detection using fundamental frequency variation and spectral features. Computer Speech and Language, 2018, 48, 31-50. | 2.9 | 36 |
| 22 | Reduction of heart sound interference from lung sound signals using empirical mode decomposition technique. Journal of Medical Engineering and Technology, 2011, 35, 344-353. | 0.8 | 35 |
| 23 | An automated tool for localization of heart sound components S1, S2, S3 and S4 in pulmonary sounds using Hilbert transform and Heron's formula. SpringerPlus, 2013, 2, 512. | 1.2 | 35 |
| 24 | Fusion of a Complementary Feature Set with MFCC for Improved Closed Set Text-Independent Speaker Identification. , 2006, , . | | 31 |
| 25 | Classification of heart sounds using empirical mode decomposition based features. International Journal of Medical Engineering and Informatics, 2008, 1, 91. | 0.2 | 30 |
| 26 | Finite element simulation of magnetoconvection inside a sinusoidal corrugated enclosure with discrete isoflux heating from below. International Communications in Heat and Mass Transfer, 2010, 37, 393-400. | 2.9 | 30 |
| 27 | Heat transfer and entropy generation of turbulent forced convection flow of nanofluids in a heated pipe. International Communications in Heat and Mass Transfer, 2015, 61, 26-36. | 2.9 | 30 |
| 28 | On robustness of speech based biometric systems against voice conversion attack. Applied Soft Computing Journal, 2015, 30, 214-228. | 4.1 | 28 |
| 29 | Recognition of emotions induced by music videos using DT-CWPT. , 2013, , . | | 27 |
| 30 | Optimization of data-driven filterbank for automatic speaker verification. , 2020, 104, 102795. | | 26 |
| 31 | ON A ROBUST ALGORITHM FOR HEART SOUND SEGMENTATION. Journal of Mechanics in Medicine and Biology, 2007, 07, 129-150. | 0.3 | 24 |
| 32 | Generalization of spoofing countermeasures: A case study with ASVspoof 2015 and BTAS 2016 corpora. , 2017, , . | | 22 |
| 33 | Investigation of the characteristics of nanofluids flow and heat transfer in a pipe using a single phase model. International Communications in Heat and Mass Transfer, 2018, 93, 48-59. | 2.9 | 21 |
| 34 | Classification of audio scenes with novel features in a fused system framework. , 2018, 75, 71-82. | | 20 |
| 35 | Conjugate forced convection transient flow and heat transfer analysis in a hexagonal, partitioned, air filled cavity with dynamic modulator. International Journal of Heat and Mass Transfer, 2021, 167, 120786. | 2.5 | 19 |
| 36 | An improved method to detect coronary artery disease using phonocardiogram signals in noisy environment. Applied Acoustics, 2020, 164, 107242. | 1.7 | 18 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Natural convection in enclosure with discrete isothermal heating from below. Journal of Naval Architecture and Marine Engineering, 2008, 4, 1-13. | 0.9 | 17 |
| 38 | Real time implementation of speaker identification system with frame picking algorithm. Procedia Computer Science, 2010, 2, 173-180. | 1.2 | 17 |
| 39 | Performance comparison of speaker recognition systems in presence of duration variability. , 2015, , . | | 17 |
| 40 | Classification of Normal, Asthma and COPD Subjects Using Multichannel Lung Sound Signals. , 2018, , . | | 17 |
| 41 | Wavelet Transform Based Mel-scaled Features for Acoustic Scene Classification. , 0, , . | | 17 |
| 42 | An instance voting approach to feature selection. Information Sciences, 2019, 504, 449-469. | 4.0 | 16 |
| 43 | Detection of coronary artery atherosclerotic disease using novel features from synchrosqueezing transform of phonocardiogram. Biomedical Signal Processing and Control, 2020, 62, 102055. | 3.5 | 16 |
| 44 | Capturing Complementary Information via Reversed Filter Bank and Parallel Implementation with MFCC for Improved Text-Independent Speaker Identification. , 2007, , . | | 15 |
| 45 | Effect of environmental and socio-economic factors on the spreading of COVID-19 at 70 cities/provinces. Heliyon, 2021, 7, e06979. | 1.4 | 15 |
| 46 | On the Use of Distributed DCT in Speaker Identification. , 2009, , . | | 14 |
| 47 | A machine learning approach to predict perceptual decisions: an insight into face pareidolia. Brain Informatics, 2019, 6, 2. | 1.8 | 14 |
| 48 | Analysis and classification of acoustic scenes with wavelet transform-based mel-scaled features. Multimedia Tools and Applications, 2020, 79, 7911-7926. | 2.6 | 14 |
| 49 | Two-level fusion-based acoustic scene classification. Applied Acoustics, 2020, 170, 107502. | 1.7 | 14 |
| 50 | DSP implementation of a heart valve disorder detection system from a phonocardiogram signal. Journal of Medical Engineering and Technology, 2008, 32, 122-132. | 0.8 | 13 |
| 51 | Study on Similarity among Indian Languages Using Language Verification Framework. Advances in Artificial Intelligence, 2015, 2015, 1-24. | 0.9 | 13 |
| 52 | Improved computerized cardiac auscultation by discarding artifact contaminated PCG signal sub-sequence. Biomedical Signal Processing and Control, 2018, 41, 48-62. | 3.5 | 13 |
| 53 | Robust kernelized graph-based learning. Pattern Recognition, 2021, 110, 107628. | 5.1 | 13 |
| 54 | Novel speech features for improved detection of spoofing attacks. , 2015, , . | | 12 |

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|----|--|-----|-----------|
| 55 | Ensembled Transfer Learning and Multiple Kernel Learning for Phonocardiogram Based Atherosclerotic Coronary Artery Disease Detection. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2804-2813. | 3.9 | 12 |
| 56 | A novel approach in feature level for robust text-independent speaker identification system. , 2012, , . | | 11 |
| 57 | How We Choose One over Another: Predicting Trial-by-Trial Preference Decision. PLoS ONE, 2012, 7, e43351. | 1.1 | 11 |
| 58 | Quality measures for speaker verification with short utterances. , 2019, 88, 66-79. | | 11 |
| 59 | On An Algorithm for Boundary Estimation of Commonly Occurring Heart Valve Diseases in Time Domain. , 2006, , . | | 10 |
| 60 | Boundary estimation of cardiac events S1 and S2 based on Hilbert transform and adaptive thresholding approach. , 2013, , . | | 10 |
| 61 | A Fusion Based Classification of Normal, Arrhythmia and Congestive Heart Failure in ECG. , 2020, , . | | 10 |
| 62 | Smartphone-Based Point-of-Care System Using Continuous-Wave Portable Doppler. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8352-8361. | 2.4 | 10 |
| 63 | Transition of nanofluids flow in an inclined heated pipe. International Communications in Heat and Mass Transfer, 2017, 82, 49-62. | 2.9 | 9 |
| 64 | Switch or stay? Automatic classification of internal mental states in bistable perception. Cognitive Neurodynamics, 2020, 14, 95-113. | 2.3 | 9 |
| 65 | Windkessel Model-Based Cuffless Blood Pressure Estimation Using Continuous Wave Doppler Ultrasound System. IEEE Sensors Journal, 2020, 20, 9989-9999. | 2.4 | 9 |
| 66 | On the use of perceptual Line Spectral pairs Frequencies and higher-order residual moments for Speaker Identification. International Journal of Biometrics, 2010, 2, 358. | 0.3 | 8 |
| 67 | Classification of Autism in Young Children by Phase Angle Clustering in Magnetoencephalogram Signals. , 2020, , . | | 8 |
| 68 | Speech frame selection for spoofing detection with an application to partially spoofed audio-data. International Journal of Speech Technology, 2021, 24, 193-203. | 1.4 | 8 |
| 69 | On robust nonlinear modeling of a complex process with large number of inputs using m-QRcp factorization and $C/\text{sub } p/$ statistic. IEEE Transactions on Systems, Man, and Cybernetics, 1999, 29, 1-12. | 5.5 | 7 |
| 70 | Investigating Neuromagnetic Brain Responses against Chromatic Flickering Stimuli by Wavelet Entropies. PLoS ONE, 2009, 4, e7173. | 1.1 | 7 |
| 71 | Interpretation of Heart Sound Signal through Automated Artifact-Free Segmentation. Heart Research - Open Journal, 2015, 2, 25-34. | 0.2 | 7 |
| 72 | Detection of peripheral arterial disease using Doppler spectrogram based expert system for Point-of-Care applications. Biomedical Signal Processing and Control, 2019, 54, 101599. | 3.5 | 6 |

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|----|--|-----|-----------|
| 73 | A Comparative Study of Feature Extraction Algorithms on ANN Based Speaker Model for Speaker Recognition Applications. Lecture Notes in Computer Science, 2004, , 1192-1197. | 1.0 | 6 |
| 74 | Investigating the Influence of Prior Expectation in Face Pareidolia using Spatial Pattern. Advances in Intelligent Systems and Computing, 2019, , 437-451. | 0.5 | 6 |
| 75 | Fast successive selection of variables in linear models using modified QR factorisation. Electronics Letters, 1995, 31, 1204. | 0.5 | 5 |
| 76 | Speech enhancement by joint statistical characterization in the Log Gabor Wavelet domain. Speech Communication, 2008, 50, 504-518. | 1.6 | 5 |
| 77 | Effect of thermal radiation and heat generation on MHD flow past a uniformly heated vertical plate. Desalination and Water Treatment, 2010, 16, 57-65. | 1.0 | 5 |
| 78 | Analysis of Heat Transfer and Entropy Generation of TiO ₂ -Water Nanofluid Flow in a Pipe under Transition. Procedia Engineering, 2015, 105, 381-387. | 1.2 | 5 |
| 79 | Improved i-vector extraction technique for speaker verification with short utterances. International Journal of Speech Technology, 2018, 21, 473-488. | 1.4 | 5 |
| 80 | Improved Speech-Signal Based Frequency Warping Scale for Cepstral Feature in Robust Speaker Verification System. Journal of Signal Processing Systems, 2020, 92, 679-692. | 1.4 | 5 |
| 81 | Improving speaker identification via Singular Value Decomposition based Feature Transformer. , 2008, , . | | 4 |
| 82 | A Robust Iterative Energy Based Voice Activity Detector. , 2010, , . | | 4 |
| 83 | Novel algorithm to identify and differentiate specific digital signature of breath sound in patients with diffuse parenchymal lung disease. Respiriology, 2015, 20, 633-639. | 1.3 | 4 |
| 84 | Optimization of cepstral features for robust lung sound classification. , 2015, , . | | 4 |
| 85 | Identification of Coronary Artery Diseased Subjects Using Spectral Features. , 2018, , . | | 4 |
| 86 | Cross-Corpora Language Recognition: A Preliminary Investigation with Indian Languages. , 2021, , . | | 4 |
| 87 | Localized multiple kernel learning using graph modularity. Pattern Recognition Letters, 2022, 155, 27-33. | 2.6 | 4 |
| 88 | Analysis of Distance Measures for Pre-Quantization before Feature Extraction in Automatic Speaker Recognition. , 2009, , . | | 3 |
| 89 | On the use of perceptual Line Spectral Pairs Frequencies for speaker identification. , 2010, , . | | 3 |
| 90 | A Discrete Wavelet Packet Transform Based Approach for Selection of Artifact-Free Phonocardiogram Segment. , 2014, , . | | 3 |

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|-----|--|-----|-----------|
| 91 | Spectral Mapping Using Prior Re-Estimation of i-Vectors and System Fusion for Voice Conversion. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 2071-2084. | 4.0 | 3 |
| 92 | Identification of Coronary Artery Disease using Cross Power Spectral Density. , 2017, , . | | 3 |
| 93 | Automatic lung sound cycle extraction from single and multichannel acoustic recordings. Biomedical Signal Processing and Control, 2021, 64, 102332. | 3.5 | 3 |
| 94 | Identification of the Major Language Families of India and Evaluation of their Mutual Influence. Current Science, 2016, 110, 667. | 0.4 | 3 |
| 95 | An F-Ratio Based Optimization on Noisy Data for Speaker Recognition Application. , 0, , . | | 2 |
| 96 | Spectral entropy and spectral shape based pre-quantization for Areal time speaker identification system. International Journal of Speech Technology, 2010, 13, 189-199. | 1.4 | 2 |
| 97 | Automatic recognition of major language families in India. , 2012, , . | | 2 |
| 98 | Graphical representations of membership functions of maximum and minimum of two fuzzy numbers using computer program. GANIT Journal of Bangladesh Mathematical Society, 2012, 31, 105-115. | 0.3 | 2 |
| 99 | A Machine Learning Approach to Decode Mental States in Bistable Perception. , 2017, , . | | 2 |
| 100 | FPGA implementation of an automobile pollution control system using a MEMS accelerometer. , 2006, , . | | 1 |
| 101 | Applications of Gauss-Radau and Gauss-Lobatto Numerical Integrations Over a Four Node Quadrilateral Finite Element. Bangladesh Journal of Scientific and Industrial Research, 2008, 43, 377-386. | 0.1 | 1 |
| 102 | Efficient pre-quantization techniques based on probability density for speaker recognition system. , 2009, , . | | 1 |
| 103 | Bayesian marginal statistics for speech enhancement using log Gabor wavelet. International Journal of Speech Technology, 2011, 14, 193-210. | 1.4 | 1 |
| 104 | A distance metric based outliers detection for robust Automatic Speaker Recognition applications. , 2011, , . | | 1 |
| 105 | On the performance of IP and mobile based Automatic Speaker Verification. , 2012, , . | | 1 |
| 106 | A system for behavior prediction based on neural signals. Neurocomputing, 2012, 97, 214-222. | 3.5 | 1 |
| 107 | Smartphone based blood flow feature extraction and classification from Doppler spectrum images. , 2016, , . | | 1 |
| 108 | A novel spectrogram based approach towards automatic lung sound cycle extraction. , 2017, , . | | 1 |

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|-----|--|-----|-----------|
| 109 | A Low-Error, Memory-Based Fast Binary Logarithmic Converter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2129-2133. | 2.2 | 1 |
| 110 | Low-Rank Kernelized Graph-based Clustering using Multiple Views. , 2020, , . | | 1 |
| 111 | Effect of Familiarity on Recognition of Pleasant and Unpleasant Emotional States Induced by Hindi Music Videos. Advances in Intelligent Systems and Computing, 2020, , 227-238. | 0.5 | 1 |
| 112 | Heat Transfer Behaviour Inside a Sinusoidal Cavity Using Water Based Tio2 Nanofluid. GANIT Journal of Bangladesh Mathematical Society, 0, 37, 121-129. | 0.3 | 1 |
| 113 | Parameters Effect on Heat Transfer Augmentation in a Cavity with Moving Horizontal Walls. Journal of Applied Mathematics and Physics, 2018, 06, 1907-1915. | 0.2 | 1 |
| 114 | Galerkin Approximations for the Solution of Fredholm Volterra Integral Equation of Second Kind. GANIT Journal of Bangladesh Mathematical Society, 2021, 41, 1-14. | 0.3 | 1 |
| 115 | Knowledge, attitude, and practice of Bangladeshi residents during COVID-19 pandemic. PLOS Global Public Health, 2022, 2, e0000407. | 0.5 | 1 |
| 116 | Log Gabor Wavelet and Maximum a Posteriori Estimator in Speaker Identification. , 2006, , . | | 0 |
| 117 | Relevant subspace selection in Kernel feature space for speech recognition. , 2010, , . | | 0 |
| 118 | Diagnosing of the lungs status using morphological anomalies of the signals in transformed domain. , 2012, , . | | 0 |
| 119 | Faster BIC segmentation using local speaker modeling. , 2012, , . | | 0 |
| 120 | Outlier removal and fusion techniques for robust speaker recognition applications. , 2012, , . | | 0 |
| 121 | Neural activity profile for short time memory task. , 2012, , . | | 0 |
| 122 | Decoding mental states in bistable perception by using source based wavelet features. , 2017, , . | | 0 |
| 123 | Texture Features for High-level Classification of Acoustic Scenes. , 2019, , . | | 0 |
| 124 | Analytical Solution of Li ² -Bernard Differential Equation using Homotopy Perturbation Method. GANIT Journal of Bangladesh Mathematical Society, 0, 39, 87-100. | 0.3 | 0 |
| 125 | Numerical Approximation of Fredholm Integral Equation (FIE) of 2nd Kind using Galerkin and Collocation Methods. GANIT Journal of Bangladesh Mathematical Society, 2019, 38, 11-25. | 0.3 | 0 |
| 126 | Gaussian Filter Based Data-Driven Cepstral Features for Robust Speaker Verification System. , 2019, , . | | 0 |

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|-----|---|-----|-----------|
| 127 | Kernelized Graph-based Multi-view Clustering on High Dimensional Data. , 2020, , . | | 0 |
| 128 | COVID-19 Re-infection: A Case Report of a Bangladeshi Doctor. Bangladesh Journal of Medicine, 2021, 32, 58-61. | 0.0 | 0 |
| 129 | Novel Quality Metric for Duration Variability Compensation in Speaker Verification using i-Vectors. , 2017, , . | | 0 |
| 130 | Feature Selection for High-Dimensional Data Through Instance Vote Combining. , 2020, , . | | 0 |