Shubhajit Roy Chowdhury

List of Publications by Year
in descending order

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38 papers	281 citations	1162889 8 h-index	1058333 14 g-index
40 all docs	40 docs citations	40 times ranked	367 citing authors

#	Article	IF	Citations
1	FPGA-Based High-Performance Phonocardiography System for Extraction of Cardiac Sound Components Using Inverse Delayed Neuron Model. Frontiers in Medical Technology, 2021, 3, 666650.	1.3	0
2	Improvements in Medical System Safety Analytics for Authentic Measure of Vital Signs Using Fault-Tolerant Design Approach. Frontiers in Medical Technology, 2021, 3, 666671.	1.3	0
3	Grey-box modeling and hypothesis testing of functional near-infrared spectroscopy-based cerebrovascular reactivity to anodal high-definition tDCS in healthy humans. PLoS Computational Biology, 2021, 17, e1009386.	1.5	10
4	Fabrication of Dual Purpose Spiking Electrode for Sensing Electroencephalogram Signal and High Definition Transcranial Direct Current Stimulation. IEEE Sensors Journal, 2020, 20, 1664-1671.	2.4	3
5	Cortical Excitability through Anodal Transcranial Direct Current Stimulation: a Computational Approach. Journal of Medical Systems, 2020, 44, 48.	2.2	2
6	Computational analysis of NIRS and BOLD signal from neurovascular coupling with three neuron-system feedforward inhibition network. Journal of Theoretical Biology, 2020, 498, 110297.	0.8	1
7	Statistical Analysis to Find out the Optimal Locations for Non Invasive Brain Stimulation. Journal of Medical Systems, 2020, 44, 85.	2.2	2
8	Improvements in Accurate Detection of Cardiac Abnormalities and Prognostic Health Diagnosis Using Artificial Intelligence in Medical Systems. IEEE Access, 2020, 8, 32776-32782.	2.6	6
9	A Computational Model to Analyse E/I (Excitation/Inhibition) Dynamics for Neural Network Integrated with Astrocyte. , 2020, , .		0
10	Non Invasive Brain Stimulation Study Based on Ischemic Stroke Patients. , 2019, 2019, 1461-1464.		3
11	Enhancement in Focality of Non-Invasive Brain Stimulation through High Definition (HD) Anodal Transcranial Direct Current Stimulation (tDCS) Techniques. , 2019, , .		3
12	Molecular Scale Optimum Hydrophobicity To Establish an Enhanced Probeâ€“Protein Interaction: Near-Infrared Imaging of Albumin Biosynthesis Modulation. ACS Applied Bio Materials, 2019, 2, 3372-3379.	2.3	4
13	Detection of Brain Stroke using Electroencephalography (EEG). , 2019, , .		5
14	Design of NIRS Probe Based on Computational Model to Find Out the Optimal Location for Non-Invasive Brain Stimulation. Journal of Medical Systems, 2018, 42, 244.	2.2	10
15	An Optimal Reflection Photoplethysmographic Sensor System Based on Skin Optics. IEEE Sensors Journal, 2018, 18, 7233-7241.	2.4	0
16	Design and simulations of low cost and low magnetic field MRI system. , 2017, , .		0
17	Near-Infrared Spectroscopy â€“ Electroencephalography-Based Brain-State-Dependent Electrotherapy: A Computational Approach Based on Excitationâ€“Inhibition Balance Hypothesis. Frontiers in Neurology, 2016, 7, 123.	1.1	14
18	A novel architecture for computing eigenvalues of matrix for high speed applications. , 2016, , .		2

#	Article	IF	Citations
19	A 4X1 High-Definition Transcranial Direct Current Stimulation Device for Targeting Cerebral Micro Vessels and Functionality Using NIRS. , 2016, , .		2
20	NON INVASIVE ESTIMATION OF BLOOD UREA CONCENTRATION USING NEAR INFRARED SPECTROSCOPY. International Journal on Smart Sensing and Intelligent Systems, 2016, 9, 449-467.	0.4	5
21	Corticospinal excitability changes to anodal tDCS elucidated with NIRS-EEG joint-imaging: An ischemic stroke study. , 2015, 2015, 3399-402.		11
22	Detection of cardio auscultation using MEMS microphone. , 2015, , .		3
23	FPGA based system for blood glucose sensing using photoplethysmography and online motion artifact correction using adaline. , 2015, , .		5
24	GMA: a high speed metaheuristic algorithmic approach to hardware software partitioning for Low-cost SoCs. , 2015, , .		5
25	Development of Point of Care Testing Device for Neurovascular Coupling From Simultaneous Recording of EEG and NIRS During Anodal Transcranial Direct Current Stimulation. IEEE Journal of Translational Engineering in Health and Medicine, 2015, 3, 1-12.	2.2	30
26	EEG-NIRS Based Assessment of Neurovascular Coupling During Anodal Transcranial Direct Current Stimulation - a Stroke Case Series. Journal of Medical Systems, 2015, 39, 205.	2.2	66
27	High-resolution detection of sustained ventricular and supraventricular tachycardia through FPGA-based fuzzy processing of ECG signal. Medical and Biological Engineering and Computing, 2015, 53, 1037-1047.	1.6	2
28	A phenomological model for capturing cerebrovascular reactivity to anodal transcranial direct current stimulation. , 2013, , .		5
29	Field Programmable Gate Array Based Fuzzy Neural Signal Processing System for Differential Diagnosis of QRS Complex Tachycardia and Tachyarrhythmia in Noisy ECG Signals. Journal of Medical Systems, 2012, 36, 765-775.	2.2	14
30	ASIC Design of a Digital Fuzzy System on Chip for Medical Diagnostic Applications. Journal of Medical Systems, 2011, 35, 221-235.	2.2	6
31	Development of a FPGA based fuzzy neural network system for early diagnosis of critical health condition of a patient. Computers in Biology and Medicine, 2010, 40, 190-200.	3.9	13
32	A comparative study on ASIC design of high frequency low power photoreceiver using 0.15µm CMOS technology. , 2010, , .		1
33	Medical Diagnosis Using Adaptive Perceptive Particle Swarm Optimization and Its Hardware Realization using Field Programmable Gate Array. Journal of Medical Systems, 2009, 33, 447-465.	2.2	12
34	FPGA BASED MAXIMUM POWER POINT TRACKER OF PARTIALLY SHADED SOLAR PHOTOVOLTAIC ARRAYS USING MODIFIED ADAPTIVE PERCEPTIVE PARTICLE SWARM OPTIMIZATION. International Journal on Smart Sensing and Intelligent Systems, 2009, 2, 661-675.	0.4	5
35	Design, Simulation and Testing of a High Speed Low Power 15-4 Compressor for High Speed Multiplication Applications. , 2008, , .		14
36	A High-Performance FPGA-Based Fuzzy Processor Architecture for Medical Diagnosis. IEEE Micro, 2008, 28, 38-52.	1.8	13

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37	Design, Simulation and Testing of an Optimized Fuzzy Neural Network for Early Criticality Diagnosis. , 2008, , .		0
38	Development of an Fpga Based Smart Diagnostic System for Spirometric Data Processing Applications. International Journal on Smart Sensing and Intelligent Systems, 2008, 1, 985-1018.	0.4	3