Anirban Dutta

List of Publications by Year
in descending order

99	1,662	361296	360920
papers	citations	20	35
		h-index	g-index

127	127	127	1889
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two-photon calcium imaging from head-fixed Drosophila during optomotor walking behavior. Nature Methods, 2010, 7, 535-540.	9.0	315
2	Recovery of functional connectivity of the sensorimotor network after surgery for diffuse low-grade gliomas involving the supplementary motor area. Journal of Neurosurgery, 2017, 126, 1181-1190.	0.9	106
3	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
4	Effects of cerebellar transcranial direct current stimulation on cerebellar-brain inhibition in humans: A systematic evaluation. Brain Stimulation, 2019, 12, 1177-1186.	0.7	49
5	Facilitating myoelectric-control with transcranial direct current stimulation: a preliminary study in healthy humans. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 13.	2.4	45
6	Electrophotographic printing of part and binder powders. Rapid Prototyping Journal, 2004, 10, 7-13.	1.6	44
7	Ambulation After Incomplete Spinal Cord Injury With EMG-Triggered Functional Electrical Stimulation. IEEE Transactions on Biomedical Engineering, 2008, 55, 791-794.	2.5	43
8	Computational Pipeline for NIRS-EEG Joint Imaging of tDCS-Evoked Cerebral Responses—An Application in Ischemic Stroke. Frontiers in Neuroscience, 2016, 10, 261.	1.4	41
9	NIRS-EEG joint imaging during transcranial direct current stimulation: Online parameter estimation with an autoregressive model. Journal of Neuroscience Methods, 2016, 274, 71-80.	1.3	41
10	Opportunities for Guided Multichannel Non-invasive Transcranial Current Stimulation in Poststroke Rehabilitation. Frontiers in Neurology, 2016, 7, 21.	1.1	38
11	Cerebellar Lobules Optimal Stimulation (CLOS): A Computational Pipeline to Optimize Cerebellar Lobule-Specific Electric Field Distribution. Frontiers in Neuroscience, 2019, 13, 266.	1.4	38
12	Gait Initiation With Electromyographically Triggered Electrical Stimulation in People With Partial Paralysis. Journal of Biomechanical Engineering, 2009, 131, 081002.	0.6	36
13	Effects of Cathode Location and the Size of Anode on Anodal Transcranial Direct Current Stimulation Over the Leg Motor Area in Healthy Humans. Frontiers in Neuroscience, 2018, 12, 443.	1.4	36
14	Point-of-care-testing of standing posture with Wii balance board and microsoft kinect during transcranial direct current stimulation: A feasibility study. NeuroRehabilitation, 2014, 34, 789-798.	0.5	35
15	SmartEye: Developing a Novel Eye Tracking System for Quantitative Assessment of Oculomotor Abnormalities. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 1051-1059.	2.7	32
16	Bidirectional interactions between neuronal and hemodynamic responses to transcranial direct current stimulation (tDCS): challenges for brain-state dependent tDCS. Frontiers in Systems Neuroscience, 2015, 9, 107.	1.2	30
17	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
18	Computational Modeling of the Photon Transport, Tissue Heating, and Cytochrome C Oxidase Absorption during Transcranial Near-Infrared Stimulation. Brain Sciences, 2019, 9, 179.	1.1	28

#	Article	IF	Citations
19	Resting-State NIRS–EEG in Unresponsive Patients with Acute Brain Injury: A Proof-of-Concept Study. Neurocritical Care, 2021, 34, 31-44.	1.2	28
20	Lobule-Specific Dosage Considerations for Cerebellar Transcranial Direct Current Stimulation During Healthy Aging: A Computational Modeling Study Using Age-Specific Magnetic Resonance Imaging Templates. Neuromodulation, 2020, 23, 341-365.	0.4	26
21	A Low-Cost Adaptive Balance Training Platform for Stroke Patients: A Usability Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 935-944.	2.7	22
22	Feasibility of combining functional near-infrared spectroscopy with electroencephalography to identify chronic stroke responders to cerebellar transcranial direct current stimulation–a computational modeling and portable neuroimaging methodological study. Cerebellum, 2021, 20, 853-871.	1.4	22
23	Investigation of an electrophotography based rapid prototyping technology. Rapid Prototyping Journal, 2003, 9, 95-103.	1.6	21
24	Deep Cerebellar Transcranial Direct Current Stimulation of the Dentate Nucleus to Facilitate Standing Balance in Chronic Stroke Survivors–A Pilot Study. Brain Sciences, 2020, 10, 94.	1.1	21
25	Investigating the feasibility of cerebellar transcranial direct current stimulation to facilitate post-stroke overground gait performance in chronic stroke: a partial least-squares regression approach. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 18.	2.4	20
26	Public perception of the vegetative state/unresponsive wakefulness syndrome: a crowdsourced study. PeerJ, 2019, 7, e6575.	0.9	20
27	Effects of anodal transcranial direct current stimulation over lower limb primary motor cortex on motor learning in healthy individuals. European Journal of Neuroscience, 2018, 47, 779-789.	1.2	19
28	Neural mass model analysis of online modulation of electroencephalogram with transcranial direct current stimulation. , 2013, , .		16
29	Virtual reality-based balance training system augmented with operant conditioning paradigm. BioMedical Engineering OnLine, 2019, 18, 90.	1.3	16
30	Decreasing the Surgical Errors by Neurostimulation of Primary Motor Cortex and the Associated Brain Activation via Neuroimaging. Frontiers in Neuroscience, 2021, 15, 651192.	1.4	15
31	Near-Infrared Spectroscopy – Electroencephalography-Based Brain-State-Dependent Electrotherapy: A Computational Approach Based on Excitation–Inhibition Balance Hypothesis. Frontiers in Neurology, 2016, 7, 123.	1.1	14
32	A Low-Cost Point-of-Care Testing System for Psychomotor Symptoms of Depression Affecting Standing Balance: A Preliminary Study in India. Depression Research and Treatment, 2013, 2013, 1-8.	0.7	13
33	Recurrence quantification analysis of surface electromyogram supports alterations in motor unit recruitment strategies by anodal transcranial direct current stimulation. Restorative Neurology and Neuroscience, 2015, 33, 663-669.	0.4	13
34	Virtual Reality-Based Center of Mass-Assisted Personalized Balance Training System. Frontiers in Bioengineering and Biotechnology, 2017, 5, 85.	2.0	13
35	Functional brain connectivity related to surgical skill dexterity in physical and virtual simulation environments. Neurophotonics, 2021, 8, 015008.	1.7	12
36	Post-stroke balance rehabilitation under multi-level electrotherapy: a conceptual review. Frontiers in Neuroscience, 2014, 8, 403.	1.4	11

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37	Corticospinal excitability changes to anodal tDCS elucidated with NIRS-EEG joint-imaging: An ischemic stroke study. , 2015, 2015, 3399-402.		11
38	Sensor-fault tolerant control of a powered lower limb prosthesis by mixing mode-specific adaptive Kalman filters. , 2011, 2011, 3696-9.		10
39	Feasibility of Functional Electrical Stimulation-Assisted Neurorehabilitation following Stroke in India: A Case Series. Case Reports in Neurological Medicine, 2012, 2012, 1-7.	0.3	10
40	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
41	Electrophotographic Layered Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 571-576.	1.3	8
42	An objective method for selecting command sources for myoelectrically triggered lower-limb neuroprostheses. Journal of Rehabilitation Research and Development, 2011, 48, 935.	1.6	8
43	Using electromagnetic reciprocity and magnetic resonance current density imaging to fit multi-electrode montage for non-invasive brain stimulation. , 2013, , .		8
44	Systems Analysis of Human Visuo-Myoelectric Control Facilitated by Anodal Transcranial Direct Current Stimulation in Healthy Humans. Frontiers in Neuroscience, 2018, 12, 278.	1.4	8
45	Neuroimaging Guided Transcranial Electrical Stimulation in Enhancing Surgical Skill Acquisition. Comment on Hung et al. The Efficacy of Transcranial Direct Current Stimulation in Enhancing Surgical Skill Acquisition: A Preliminary Meta-Analysis of Randomized Controlled Trials. Brain Sci. 2021, 11, 707. Brain Sciences, 2021, 11, 1078.	1.1	8
46	Effect of Transcranial Direct Current Stimulation on Cortico-Muscular Coherence and Standing Postural Steadiness. , 2012, , .		8
47	Nonlinear analysis of electromyogram following gait training with myoelectrically triggered neuromuscular electrical stimulation in stroke survivors. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	7
48	Translational Methods for Non-Invasive Electrical Stimulation to Facilitate Gait Rehabilitation Following Stroke - The Future Directions. Neuroscience and Biomedical Engineering, 2013, 1, 22-33.	0.4	7
49	A Human-machine-interface Integrating Low-cost Sensors with a Neuromuscular Electrical Stimulation System for Post-stroke Balance Rehabilitation. Journal of Visualized Experiments, 2016, , .	0.2	7
50	Optimizing cerebellar transcranial direct current stimulation for visuomotor learning - anterior versus posterior lobe of cerebellum. , 2017, , .		7
51	A computational pipeline to find lobule-specific electric field distribution during non-invasive cerebellar stimulation. , 2019, 2019, 1191-1196.		7
52	Bioenergy Crisis in Coronavirus Diseases?. Brain Sciences, 2020, 10, 277.	1.1	7
53	Low-cost visual postural feedback with Wii balance board and Microsoft Kinect - a feasibility study. , 2013, , .		6
54	Delineating the effects of anodal transcranial direct current stimulation on myoelectric control based on slow cortical potentials. , 2014, 2014, 3094-7.		6

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55	Transcranial Direct Current Stimulation of the Leg Motor Area â€" is it partly somatosensory?. , 2018, 2018, 4764-4767.		6
56	Public opinion and legislations related to brain death, circulatory death and organ donation. Journal of the Neurological Sciences, 2020, 413, 116800.	0.3	6
57	Development of an implanted intramuscular EMG-triggered FES system for ambulation after incomplete spinal cord injury. , 2009, 2009, 6793-7.		5
58	A phenomological model for capturing cerebrovascular reactivity to anodal transcranial direct current stimulation. , 2013, , .		5
59	Development of a brain computer interface for delivery of non-invasive brain stimulation during visuomotor task performance - a method study. , 2015, , .		5
60	Neural interfacing non-invasive brain stimulation with NIRS-EEG joint imaging for closed-loop control of neuroenergetics in ischemic stroke. , 2017, , .		5
61	A proof of concept â€˜phase zeroâ€™ study of neurodevelopment using brain organoid models with Vis/near-infrared spectroscopy and electrophysiology. Scientific Reports, 2020, 10, 20987.	1.6	5
62	Simultaneous functional near-infrared spectroscopy (fNIRS) and electroencephalogram (EEG) to elucidate neurovascular modulation by transcranial electrical stimulation (tES). Brain Stimulation, 2021, 14, 1093-1094.	0.7	5
63	Neuroimaging guided tES to facilitate complex laparoscopic surgical tasks â€" insights from functional near-infrared spectroscopy. , 2021, 2021, 7437-7440.		5
64	Walking after partial paralysis assisted with EMG-triggered or switch-triggered functional electrical stimulation — Two case studies. , 2011, 2011, 5975383.		4
65	soleSCAN - mobile phone based monitoring of foot sole for callus formation and the shoe insole for pressure “hot spots”. , 2013, , .		4
66	Engagement-sensitive interactive neuromuscular electrical therapy system for post-stroke balance rehabilitation - a concept study. , 2015, , .		4
67	Quantification of grip strength with complexity analysis of surface electromyogram for hemiplegic post-stroke patients. NeuroRehabilitation, 2019, 45, 45-56.	0.5	4
68	Transcranial Direct Current Stimulation Integration with Magnetic Resonance Imaging, Magnetic Resonance Spectroscopy, Near Infrared Spectroscopy Imaging, and Electroencephalography. , 2019, , 293-345.		4
69	Portable Neuroimaging-Guided Noninvasive Brain Stimulation of the Cortico-Cerebello-Thalamo-Cortical Loopâ€"Hypothesis and Theory in Cannabis Use Disorder. Brain Sciences, 2022, 12, 445.	1.1	4
70	A Low-Cost Biofeedback System for Electromyogram-Triggered Functional Electrical Stimulation Therapy: An Indo-German Feasibility Study. ISRN Stroke, 2014, 2014, 1-13.	0.8	3
71	Opioid agonist treatment during SARS-CoV2 & extended lockdown: Adaptations & challenges in the Indian context. Asian Journal of Psychiatry, 2020, 53, 102377.	0.9	3
72	Feasibility of Cerebellar Transcranial Direct Current Stimulation to Facilitate Goal-Directed Weight Shifting in Chronic Post-Stroke Hemiplegics. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2203-2210.	2.7	3

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73	Functional near-infrared spectroscopy (fNIRS) of posterolateral cerebellum and prefrontal cortex for fNIRS-driven cerebellar tES â€" a case report. Brain Stimulation, 2021, 14, 1692.	0.7	3
74	State-space analysis of Hodgkin-Huxley axonal neural mass model during subthreshold high frequency alternating current stimulation. , 2013, , .		2
75	Anterior temporal artery tap to identify systemic interference using short-separation NIRS measurements: A NIRS/EEG-tDCS study. , 2015, 2015, 1239-42.		2
76	Neurophysiological Correlates of tDCS-Induced Modulation of Cortical Sensorimotor Networks. , 2019, , 147-151.		2
77	Interhemispheric Functional Connectivity in the Primary Motor Cortex Distinguishes Between Training on a Physical and a Virtual Surgical Simulator. Lecture Notes in Computer Science, 2021, , 636-644.	1.0	2
78	Portable neuroimaging and computational modeling approach to elucidate potential cognitive confounds in non-invasive stimulation of the motor cerebellum. Brain Stimulation, 2021, 14, 1133-1134.	0.7	2
79	Effects of Cathode Placement on Anodal Transcranial DC Stimulation of Leg Motor Area: A Simulation Study. , 2012, , .		2
80	A deep learning model for a priori estimation of spatiotemporal regions for neuroimaging guided non-invasive brain stimulation. Brain Stimulation, 2021, 14, 1689.	0.7	2
81	Physiological neurovascular modeling of cerebrovascular effects of transcranial electrical current stimulation. Brain Stimulation, 2021, 14, 1597-1598.	0.7	2
82	Cerebral and muscle near-infrared spectroscopy during lower-limb muscle activity â€" volitional and neuromuscular electrical stimulation. , 2021, 2021, 6577-6580.		2
83	Brain network effects related to physical and virtual surgical training revealed by Granger causality. , 2021, 2021, 1014-1017.		2
84	Ambulation after Incomplete Spinal Cord Injury with Electromyogram-triggered Functional Electrical Stimulation. , 2006, 2006, 5408-11.		1
85	Electromyogram-Triggered Functional Electrical Stimulation-Assisted Walking After Partial Paralysis. Journal of Medical Devices, Transactions of the ASME, 2008, 2, .	0.4	1
86	Near infra-red spectroscopy combined with transcranial direct current stimulation in FPGA-based hardware for point of care testing of cerebral vascular status - A stroke study. , 2015, , .		1
87	Engagement sensitive visual stimulation. European Journal of Translational Myology, 2016, 26, 6032.	0.8	1
88	Exercises to Determine Older Adultsâ€™ Muscle Oxygenation Change Rate by Various Physical Performance Levels. Archives of Physical Medicine and Rehabilitation, 2019, 100, e178-e179.	0.5	1
89	Brainâ€"Computer Interface Spellers for Communication: Why We Need to Address Their Security and Authenticity. Brain Sciences, 2020, 10, 139.	1.1	1
90	Wearable Sensor for Multi-wavelength Near-Infrared Spectroscopy of Skin Hemodynamics Along with Underlying Muscle Electromyography. Biosystems and Biorobotics, 2022, , 413-418.	0.2	1

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91	Post-stroke Engagement-sensitive Balance Rehabilitation Under An Adaptive Multi-level Electrotherapy: Clinical Hypothesis and Computational Framework. Neuroscience and Biomedical Engineering, 2015, 2, 68-80.	0.4	1
92	Evaluation of an Instrumented Sleeve for Myoelectrically-Triggered Functional Electrical Therapy: Indo-German Stroke Study. , 2012, , .		1
93	Low-Tech Innovations to Prevent Neonatal Mortality: Perspectives from Public Health, Neonatology, and Biomedical Engineering. , 2020, , 113-126.		1
94	Perception action cycle-related brain networks differentiate experts and novices: a combined EEG, fNIRS study during a complex surgical motor task. , 2022, , .		1
95	Layered Manufacturing by Electrophotographic Printing. , 2003, , 205.		0
96	Stochastic resonance-enhanced laser-based particle detector. , 2009, 2009, 785-7.		0
97	OpenFES: Development of an Open-Source EMG-Triggered Functional Electrical Stimulation Controller for Physical Therapy. Journal of Medical Devices, Transactions of the ASME, 2010, 4, .	0.4	0
98	Automatic Independent Component Scalp Map Analysis of Electroencephalogram During Motor Preparation. , 2018, 2018, 4689-4692.		0
99	Portable neuroimaging and biped multi-task battery to study the effects of non-invasive cerebellar stimulation: a case series on hemiplegic patients with and without basal ganglia lesion. Brain Stimulation, 2021, 14, 1646.	0.7	0