

# Zoran Nenadic

## List of Publications by Year in descending order

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81  
papers

2,061  
citations

304743

22  
h-index

265206

42  
g-index

82  
all docs

82  
docs citations

82  
times ranked

2069  
citing authors

#	ARTICLE	IF	CITATIONS
1	A CMOS Dual-Mode Brain-Computer Interface Chipset With 2-mV Precision Time-Based Charge Balancing and Stimulation-Side Artifact Suppression. IEEE Journal of Solid-State Circuits, 2022, 57, 1824-1840.	5.4	24
2	An Analysis of CMRR Degradation in Multi-Channel Biosignal Recording Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 151-155.	3.0	4
3	Brain-Computer interfaces for human gait restoration. Control Theory and Technology, 2021, 19, 516-528.	1.6	1
4	A Fully-Integrated 1 $\mu$ W/Channel Dual-Mode Neural Data Acquisition System for Implantable Brain-Machine Interfaces. , 2021, 2021, 5780-5783.		0
5	An Energy-Efficient CMOS Dual-Mode Array Architecture for High-Density ECoG-Based Brain-Machine Interfaces. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 332-342.	4.0	16
6	Thermal Analysis of a Skull Implant in Brain-Computer Interfaces. , 2020, 2020, 3066-3069.		7
7	A Prototype of a Fully-Implantable Charge-Balanced Artificial Sensory Stimulator for Bi-directional Brain-Computer-Interface (BD-BCI). , 2020, 2020, 3083-3085.		4
8	Optimal artifact suppression in simultaneous electrocorticography stimulation and recording for bi-directional brain-computer interface applications. Journal of Neural Engineering, 2020, 17, 026038.	3.5	6
9	Pre-whitening and Null Projection as an Artifact Suppression Method for Electrocorticography Stimulation in Bi-Directional Brain Computer Interfaces. , 2020, 2020, 3493-3496.		0
10	Dipole Cancellation as an Artifact Suppression Technique in Simultaneous Electrocorticography Stimulation and Recording. , 2019, , .		6
11	A benchtop system to assess the feasibility of a fully independent and implantable brain-machine interface. Journal of Neural Engineering, 2019, 16, 066043.	3.5	13
12	A CMOS MedRadio Transceiver With Supply-Modulated Power Saving Technique for an Implantable Brain-Computer Interface System. IEEE Journal of Solid-State Circuits, 2019, 54, 1541-1552.	5.4	23
13	Electroencephalography-based endogenous brain-Computer interface for online communication with a completely locked-in patient. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 18.	4.6	47
14	Electrocorticographic Encoding of Human Gait in the Leg Primary Motor Cortex. Cerebral Cortex, 2018, 28, 2752-2762.	2.9	44
15	Subspace-Based Suppression of Cortical Stimulation Artifacts. , 2018, 2018, 2426-2429.		5
16	Characterization of Stimulation Artifact Behavior in Simultaneous Electrocorticography Grid Stimulation and Recording. , 2018, 2018, 4748-4751.		6
17	Electrocorticographic Activity of the Brain During Micturition. , 2018, 2018, 3622-3625.		2
18	A CMOS inductorless MedRadio OOK transceiver with a 42 $\mu$ W event-driven supply-modulated RX and a 14% efficiency TX for medical implants. , 2018, , .		7

#	ARTICLE	IF	CITATIONS
19	Understanding How The Brain Controls Movement In Humans. , 2018, , .		0
20	Performance Assessment of a Custom, Portable, and Low-Cost Brain-Computer Interface Platform. IEEE Transactions on Biomedical Engineering, 2017, 64, 2313-2320.	4.2	34
21	CMOS Ultralow Power Brain Signal Acquisition Front-Ends: Design and Human Testing. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1111-1122.	4.0	23
22	Characterization of electrocorticogram high-gamma signal in response to varying upper extremity movement velocity. Brain Structure and Function, 2017, 222, 3705-3748.	2.3	18
23	A Low-Cost, Fully Programmable, Battery Powered Direct Cortical Electrical Stimulator1. Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.7	0
24	Automated detection and analysis of depolarization events in human cardiomyocytes using MaDEC. Computers in Biology and Medicine, 2016, 75, 109-117.	7.0	2
25	BCI-Based Neuroprostheses and Physiotherapies for Stroke Motor Rehabilitation. , 2016, , 617-627.		3
26	A small, portable, battery-powered brain-computer interface system for motor rehabilitation. , 2016, 2016, 2776-2779.		11
27	Feasibility of an ultra-low power digital signal processor platform as a basis for a fully implantable brain-computer interface system. , 2016, 2016, 4491-4494.		2
28	Accurate detection of low signal-to-noise ratio neuronal calcium transient waves using a matched filter. Journal of Neuroscience Methods, 2016, 259, 1-12.	2.5	12
29	Comparison of decoding resolution of standard and high-density electrocorticogram electrodes. Journal of Neural Engineering, 2016, 13, 026016.	3.5	42
30	Brain-controlled functional electrical stimulation therapy for gait rehabilitation after stroke: a safety study. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 57.	4.6	43
31	The feasibility of a brain-computer interface functional electrical stimulation system for the restoration of overground walking after paraplegia. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 80.	4.6	80
32	A cortical activity localization approach for decoding finger movements from human electrocorticogram signal. , 2015, , .		1
33	A 64-channel ultra-low power bioelectric signal acquisition system for brain-computer interface. , 2015, , .		9
34	A novel framework for feature extraction in multi-sensor action potential sorting. Journal of Neuroscience Methods, 2015, 253, 262-271.	2.5	4
35	Intrinsic dimensionality of extracellular action potentials. , 2014, 2014, 3228-31.		0
36	Brain-controlled functional electrical stimulation for lower-limb motor recovery in stroke survivors. , 2014, 2014, 1247-50.		13

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37	Brain-computer interface driven functional electrical stimulation system for overground walking in spinal cord injury participant. , 2014, 2014, 1238-42.		14
38	A supervised multi-sensor matched filter for the detection of extracellular action potentials. , 2014, 2014, 5996-9.		1
39	Electrocorticogram encoding of upper extremity movement duration. , 2014, 2014, 1243-6.		4
40	Performance Assessment of a Brain-Computer Interface Driven Hand Orthosis. Annals of Biomedical Engineering, 2014, 42, 2095-2105.	2.5	22
41	Extracting kinetic information from human motor cortical signals. NeuroImage, 2014, 101, 695-703.	4.2	84
42	Operation of a brain-computer interface walking simulator for individuals with spinal cord injury. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 77.	4.6	68
43	Brain-computer interface controlled robotic gait orthosis. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 111.	4.6	135
44	A co-registration approach for electrocorticogram electrode localization using post-implantation MRI and CT of the head. , 2013, , .		15
45	Source location as a feature for the classification of multi-sensor extracellular action potentials. , 2013, , .		2
46	The accuracy and precision of signal source localization with tetrodes. , 2013, 2013, 531-4.		4
47	Wavelet-approximated generalized matched filter for the detection of multisensor extracellular action potentials. , 2013, , .		2
48	State and trajectory decoding of upper extremity movements from electrocorticogram. , 2013, , .		6
49	Electrocorticogram encoding of upper extremity movement trajectories. , 2013, , .		4
50	Sensitivity and specificity of upper extremity movements decoded from electrocorticogram. , 2013, 2013, 5618-21.		6
51	Self-paced brain-computer interface control of ambulation in a virtual reality environment. Journal of Neural Engineering, 2012, 9, 056016.	3.5	44
52	Brain-computer interface controlled functional electrical stimulation device for foot drop due to stroke. , 2012, 2012, 6414-7.		36
53	Laminar circuit organization and response modulation in mouse visual cortex. Frontiers in Neural Circuits, 2012, 6, 70.	2.8	14
54	Projection Versus Prewhitening for EEG Interference Suppression. IEEE Transactions on Biomedical Engineering, 2012, 59, 1329-1338.	4.2	22

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55	Efficient Dipole Parameter Estimation in EEG Systems With Near-ML Performance. IEEE Transactions on Biomedical Engineering, 2012, 59, 1339-1348.	4.2	15
56	Brain-Computer Interface Controlled Functional Electrical Stimulation System for Ankle Movement. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 49.	4.6	101
57	A durable, low-cost electrogoniometer for dynamic measurement of joint trajectories. Medical Engineering and Physics, 2011, 33, 546-552.	1.7	49
58	Noninvasive brain-computer interface driven hand orthosis. , 2011, 2011, 5786-9.		18
59	Matched subspace detector based feature extraction for sorting of multi-sensor action potentials. , 2011, 2011, 3704-7.		0
60	Signal source localization with tetrodes: Experimental verification. , 2011, 2011, 67-70.		3
61	High Precision and Fast Functional Mapping of Cortical Circuitry Through a Novel Combination of Voltage Sensitive Dye Imaging and Laser Scanning Photostimulation. Journal of Neurophysiology, 2010, 103, 2301-2312.	1.8	41
62	Novel Use of Matched Filtering for Synaptic Event Detection and Extraction. PLoS ONE, 2010, 5, e15517.	2.5	26
63	Mental State Estimation for Brain-Computer Interfaces. IEEE Transactions on Biomedical Engineering, 2009, 56, 2114-2122.	4.2	19
64	An efficient discriminant-based solution for small sample size problem. Pattern Recognition, 2009, 42, 857-866.	8.1	67
65	Structure of brain functional networks. , 2009, 2009, 4166-70.		5
66	Approximate information discriminant analysis: A computationally simple heteroscedastic feature extraction technique. Pattern Recognition, 2008, 41, 1548-1557.	8.1	40
67	A Comparative Analysis of Coronary and Aortic Flow Waveforms. Annals of Biomedical Engineering, 2008, 36, 933-946.	2.5	5
68	Robust Unsupervised Detection of Action Potentials With Probabilistic Models. IEEE Transactions on Biomedical Engineering, 2008, 55, 1344-1354.	4.2	20
69	An Efficient Algorithm for Current Source Localization with Tetrodes. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1282-5.	0.5	11
70	Information Discriminant Analysis: Feature Extraction with an Information-Theoretic Objective. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1394-1407.	13.9	89
71	A Classwise PCA-based Recognition of Neural Data for Brain-Computer Interfaces. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6520-3.	0.5	25
72	A control algorithm for autonomous optimization of extracellular recordings. IEEE Transactions on Biomedical Engineering, 2006, 53, 941-955.	4.2	31

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73	Analysis of Large-Scale Brain Data for Brain-Computer Interfaces. , 2006, 2006, 5731-4.		4
74	Analysis of Large-Scale Brain Data for Brain-Computer Interfaces. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
75	Spike Detection Using the Continuous Wavelet Transform. IEEE Transactions on Biomedical Engineering, 2005, 52, 74-87.	4.2	310
76	Semi-Chronic Motorized Microdrive and Control Algorithm for Autonomously Isolating and Maintaining Optimal Extracellular Action Potentials. Journal of Neurophysiology, 2005, 93, 570-579.	1.8	85
77	Encoding and decoding of analog signals with a population of neurons. Mathematical and Computer Modelling, 2004, 39, 181-196.	2.0	1
78	Propagating waves in visual cortex: a large-scale model of turtle visual cortex. Journal of Computational Neuroscience, 2003, 14, 161-184.	1.0	46
79	Modeling and estimation problems in the turtle visual cortex. IEEE Transactions on Biomedical Engineering, 2002, 49, 753-762.	4.2	47
80	Control of arm movement using population of neurons. Mathematical and Computer Modelling, 2002, 35, 1261-1269.	2.0	1
81	Spatiotemporal dynamics in a model of turtle visual cortex. Neurocomputing, 2000, 32-33, 479-486.	5.9	7