

Banu Onaral

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

3,910
citations

236925

25
h-index

155660

55
g-index

79
all docs

79
docs citations

79
times ranked

3005
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical brain monitoring for operator training and mental workload assessment. <i>NeuroImage</i> , 2012, 59, 36-47.	4.2	526
2	fNIRS Study of Walking and Walking While Talking in Young and Old Individuals. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2011, 66A, 879-887.	3.6	337
3	Functional near-infrared spectroscopy. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2006, 25, 54-62.	0.8	250
4	Continuous monitoring of brain dynamics with functional near infrared spectroscopy as a tool for neuroergonomic research: empirical examples and a technological development. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 871.	2.0	211
5	Functional near-infrared neuroimaging. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2005, 13, 153-159.	4.9	207
6	Functional Optical Brain Imaging Using Near-Infrared During Cognitive Tasks. <i>International Journal of Human-Computer Interaction</i> , 2004, 17, 211-227.	4.8	187
7	Using MazeSuite and Functional Near Infrared Spectroscopy to Study Learning in Spatial Navigation. <i>Journal of Visualized Experiments</i> , 2011, , .	0.3	153
8	Motion Artifact Cancellation in NIR Spectroscopy Using Wiener Filtering. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 934-938.	4.2	146
9	Functional brain imaging using near-infrared technology. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2007, 26, 38-46.	0.8	143
10	Measuring speakerâ€™listener neural coupling with functional near infrared spectroscopy. <i>Scientific Reports</i> , 2017, 7, 43293.	3.3	135
11	A portable near infrared spectroscopy system for bedside monitoring of newborn brain. <i>BioMedical Engineering OnLine</i> , 2005, 4, 29.	2.7	126
12	Sliding-window motion artifact rejection for Functional Near-Infrared Spectroscopy. , 2010, 2010, 6567-70.		124
13	Motion artifact cancellation in NIR spectroscopy using discrete Kalman filtering. <i>BioMedical Engineering OnLine</i> , 2010, 9, 16.	2.7	120
14	A Methodology for Validating Artifact Removal Techniques for Physiological Signals. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2012, 16, 918-926.	3.2	91
15	Registering fNIR Data to Brain Surface Image using MRI templates. , 2006, 2006, 2671-4.		90
16	Safety assessment of near infrared light emitting diodes for diffuse optical measurements. <i>BioMedical Engineering OnLine</i> , 2004, 3, 9.	2.7	79
17	A Systematic Review of Integrated Functional Near-Infrared Spectroscopy (fNIRS) and Transcranial Magnetic Stimulation (TMS) Studies. <i>Frontiers in Neuroscience</i> , 2019, 13, 84.	2.8	67
18	THE EVOLUTION OF FIELD DEPLOYABLE fNIR SPECTROSCOPY FROM BENCH TO CLINICAL SETTINGS. <i>Journal of Innovative Optical Health Sciences</i> , 2011, 04, 239-250.	1.0	55

#	ARTICLE	IF	CITATIONS
19	Cognitive Workload and Learning Assessment During the Implementation of a Next-Generation Air Traffic Control Technology Using Functional Near-Infrared Spectroscopy. IEEE Transactions on Human-Machine Systems, 2014, 44, 429-440.	3.5	53
20	Maze Suite 1.0: A complete set of tools to prepare, present, and analyze navigational and spatial cognitive neuroscience experiments. Behavior Research Methods, 2008, 40, 353-359.	4.0	46
21	Verbal working memory impairments following traumatic brain injury: an fNIRS investigation. Brain Imaging and Behavior, 2014, 8, 446-459.	2.1	45
22	Detecting cognitive activity related hemodynamic signal for brain computer interface using functional near infrared spectroscopy. , 2007, , .		41
23	Assessment of Cognitive Neural Correlates for a Functional Near Infrared-Based Brain Computer Interface System. Lecture Notes in Computer Science, 2009, , 699-708.	1.3	41
24	Implementation of fNIRS for Monitoring Levels of Expertise and Mental Workload. Lecture Notes in Computer Science, 2011, , 13-22.	1.3	41
25	Electrical Properties of Bioelectrodes. IEEE Transactions on Biomedical Engineering, 1984, BME-31, 827-832.	4.2	38
26	Optical Brain Imaging to Enhance UAV Operator Training, Evaluation, and Interface Development. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 61, 423-443.	3.4	35
27	FUNCTIONAL NEAR-INFRARED SPECTROSCOPY-BASED ASSESSMENT OF ATTENTION IMPAIRMENTS AFTER TRAUMATIC BRAIN INJURY. Journal of Innovative Optical Health Sciences, 2011, 04, 251-260.	1.0	31
28	Early diagnosis of traumatic intracranial hematomas. Journal of Biomedical Optics, 2019, 24, 1.	2.6	30
29	Cognitive Workload Assessment of Air Traffic Controllers Using Optical Brain Imaging Sensors. Advances in Human Factors and Ergonomics Series, 2010, , 21-31.	0.2	30
30	Molecular concentration of deoxyHb in human prefrontal cortex predicts the emergence and suppression of consciousness. NeuroImage, 2014, 85, 616-625.	4.2	27
31	Performance Monitoring via Functional Near Infrared Spectroscopy for Virtual Reality Based Basic Life Support Training. Frontiers in Neuroscience, 2019, 13, 1336.	2.8	25
32	Tangram solved? Prefrontal cortex activation analysis during geometric problem solving. , 2012, 2012, 4724-7.		23
33	The Use of Functional Near-Infrared Spectroscopy in Neuroergonomics. , 2019, , 17-25.		22
34	A P300-based EEG-BCI for spatial navigation control. , 2012, 2012, 3841-4.		21
35	UAV Operators Workload Assessment by Optical Brain Imaging Technology (fNIR). , 2015, , 2475-2500.		21
36	An optical brain computer interface for environmental control. , 2011, 2011, 6327-30.		20

#	ARTICLE	IF	CITATIONS
37	Frontal lobe role in simple arithmetic calculations: An fNIR study. <i>Neuroscience Letters</i> , 2012, 510, 43-47.	2.1	20
38	Towards a Hybrid P300-Based BCI Using Simultaneous fNIR and EEG. <i>Lecture Notes in Computer Science</i> , 2013, , 335-344.	1.3	18
39	Using Brain Activity to Predict Task Performance and Operator Efficiency. <i>Lecture Notes in Computer Science</i> , 2012, , 147-155.	1.3	18
40	Evaluation of light detector surface area for functional Near Infrared Spectroscopy. <i>Computers in Biology and Medicine</i> , 2017, 89, 68-75.	7.0	15
41	Neural Adaptation to a Working Memory Task: A Concurrent EEG-fNIRS Study. <i>Lecture Notes in Computer Science</i> , 2015, , 268-280.	1.3	13
42	Visuospatial task-related prefrontal activity is correlated with negative symptoms in schizophrenia. <i>Scientific Reports</i> , 2019, 9, 9575.	3.3	13
43	Brain in the Loop: Assessing Learning Using fNIR in Cognitive and Motor Tasks. <i>Lecture Notes in Computer Science</i> , 2011, , 240-249.	1.3	12
44	Estimation of Cognitive Workload during Simulated Air Traffic Control Using Optical Brain Imaging Sensors. <i>Lecture Notes in Computer Science</i> , 2011, , 549-558.	1.3	12
45	Evaluation of evoked responses to pulse-matched high frequency and intermittent theta burst transcranial magnetic stimulation using simultaneous functional near-infrared spectroscopy. <i>Neurophotonics</i> , 2017, 4, 1.	3.3	12
46	A Functional Near-Infrared Spectroscopy Study of Lexical Decision Task Supports the Dual Route Model and the Phonological Deficit Theory of Dyslexia. <i>Journal of Learning Disabilities</i> , 2014, 47, 279-288.	2.2	11
47	Kalman filtering for self-similar processes. <i>Signal Processing</i> , 2006, 86, 760-775.	3.7	10
48	Bridging Brain and Educational Sciences: An Optical Brain Imaging Study of Visuospatial Reasoning. <i>Procedia, Social and Behavioral Sciences</i> , 2011, 29, 300-309.	0.5	10
49	A methodology for validating artifact removal techniques for fNIRS. , 2011, 2011, 4943-6.		9
50	Modulation of Functional Connectivity and Activation during Preparation for Hand Movement. <i>IEEE Transactions on Occupational Ergonomics and Human Factors</i> , 2016, 4, 175-187.	0.4	8
51	Applications of Functional Near Infrared Imaging: Case Study on UAV Ground Controller. <i>Lecture Notes in Computer Science</i> , 2011, , 608-617.	1.3	8
52	A Working Memory Deficit among Dyslexic Readers with No Phonological Impairment as Measured Using the N-Back Task: An fNIR Study. <i>PLoS ONE</i> , 2012, 7, e46527.	2.5	7
53	Functional Near-Infrared Spectroscopy and Electroencephalography: A Multimodal Imaging Approach. <i>Lecture Notes in Computer Science</i> , 2009, , 417-426.	1.3	7
54	Multilayer, Dynamic, Mixed Solid/Liquid Human Head Models for the Evaluation of Near Infrared Spectroscopy Systems. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 8441-8451.	4.7	6

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55	Functional Near-Infrared Spectroscopy in Addiction Treatment: Preliminary Evidence as a Biomarker of Treatment Response. Lecture Notes in Computer Science, 2013, , 250-258.	1.3	6
56	Human Performance Assessment Study in Aviation Using Functional Near Infrared Spectroscopy. Lecture Notes in Computer Science, 2013, , 433-442.	1.3	6
57	Single Trial Hemodynamic Response Estimation in Event Related fNIR Spectroscopy. , 2004, , .		6
58	<title>Motion artifact removal in FNIR spectroscopy for real-world applications</title>. , 2004, 5588, 224.		5
59	Detection of attention shift for asynchronous P300-based BCI. , 2012, 2012, 3850-3.		5
60	Brain Activity of Young and Adult Hebrew Speakers during Lexical Decision Task: fNIR Application to Language. Lecture Notes in Computer Science, 2011, , 231-239.	1.3	5
61	Brain in the Loop Learning Using Functional Near Infrared Spectroscopy. Lecture Notes in Computer Science, 2013, , 381-389.	1.3	5
62	Optical Brain Imaging to Enhance UAV Operator Training, Evaluation, and Interface Development. , 2010, , 423-443.		5
63	Treatment Status Predicts Differential Prefrontal Cortical Responses to Alcohol and Natural Reinforcer Cues among Alcohol Dependent Individuals. Lecture Notes in Computer Science, 2012, , 183-191.	1.3	4
64	<title>Discrete time processing of linear scale-invariant signals and systems</title>. , 2000, 4116, 110.		3
65	Non-invasive neuroimaging: Generalized Linear Models for interpreting functional Near Infrared Spectroscopy signals. , 2007, , .		3
66	Optimal Wiener filtering for self-similar processes. , 2002, , .		2
67	Functional brain activity monitoring during Unmanned Aerial Vehicle coordination. , 2012, , .		2
68	Differential Prefrontal Response during Natural and Synthetic Speech Perception: An fNIR Based Neuroergonomics Study. Lecture Notes in Computer Science, 2013, , 241-249.	1.3	2
69	Emerging Economies, Enduring Partnerships. Science Translational Medicine, 2012, 4, 158ed8.	12.4	1
70	Evaluating Neural Correlates of Constant-Therapy Neurorehabilitation Task Battery: An fNIRS Pilot Study. Lecture Notes in Computer Science, 2016, , 231-241.	1.3	1
71	Predicting Audience Preferences for Television Advertisements Using Functional Brain Imaging. , 2018, , 265-266.		1
72	Assessing Correlation Between Virtual Reality Based Serious Gaming Performance and Cognitive Workload Changes via Functional Near Infrared Spectroscopy. Lecture Notes in Computer Science, 2019, , 375-383.	1.3	1

#	ARTICLE	IF	CITATIONS
73	Preliminary study of neurocognitive differences in attention and fluency in Schizophrenia using fNIRS. , 2017, , .		0
74	Using Neural Correlates for Enhancing Customer Experience Through Effective Visual Price Placement. , 2018, , 285-286.		0
75	Neural Correlates of Math Anxiety of Consumer Choices on Price Promotions. Advances in Intelligent Systems and Computing, 2019, , 152-160.	0.6	0
76	Wavelet analysis for EEG feature extraction in deception detection. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
77	Registering fNIR Data to Brain Surface Image using MRI templates. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0