Hasan Al-Nashash

List of Publications by Year
in descending order

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119	1,343	430442	433756
papers	citations	18	31
		h-index	g-index

124	124	124	1057
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Detection of life-threatening cardiac arrhythmias using the wavelet transformation. Medical and Biological Engineering and Computing, 1997, 35, 626-632.	1.6	126
2	A Review on Mental Stress Assessment Methods Using EEG Signals. Sensors, 2021, 21, 5043.	2.1	82
3	A Novel Technique for the Extraction of Fetal ECG Using Polynomial Networks. IEEE Transactions on Biomedical Engineering, 2005, 52, 1148-1152.	2.5	80
4	New Insights into Image Processing of Cortical Blood Flow Monitors Using Laser Speckle Imaging. IEEE Transactions on Medical Imaging, 2007, 26, 833-842.	5.4	59
5	EEG and Eye Tracking Demonstrate Vigilance Enhancement with Challenge Integration. Frontiers in Human Neuroscience, 2016, 10, 273.	1.0	52
6	Wavelet Entropy for Subband Segmentation of EEG During Injury and Recovery. Annals of Biomedical Engineering, 2003, 31, 653-658.	1.3	45
7	Vigilance Decrement and Enhancement Techniques: A Review. Brain Sciences, 2019, 9, 178.	1.1	45
8	EEG Signal Modeling Using Adaptive Markov Process Amplitude. IEEE Transactions on Biomedical Engineering, 2004, 51, 744-751.	2.5	41
9	Emotion Recognition Based on Fusion of Local Cortical Activations and Dynamic Functional Networks Connectivity: An EEG Study. IEEE Access, 2019, 7, 143550-143562.	2.6	39
10	A dynamic fourier series for the compression of ECG using FFT and adaptive coefficient estimation. Medical Engineering and Physics, 1995, 17, 197-203.	0.8	37
11	Brain Connectivity Analysis Under Semantic Vigilance and Enhanced Mental States. Brain Sciences, 2019, 9, 363.	1.1	34
12	Spinal Cord Injury Detection and Monitoring Using Spectral Coherence. IEEE Transactions on Biomedical Engineering, 2009, 56, 1971-1979.	2.5	29
13	Cognitive workload modulation through degraded visual stimuli: a single-trial EEG study. Journal of Neural Engineering, 2015, 12, 046020.	1.8	29
14	EEG-Based Semantic Vigilance Level Classification Using Directed Connectivity Patterns and Graph Theory Analysis. IEEE Access, 2020, 8, 115941-115956.	2.6	26
15	Monitoring of Global Cerebral Ischemia Using Wavelet Entropy Rate of Change. IEEE Transactions on Biomedical Engineering, 2005, 52, 2119-2122.	2.5	24
16	Prediction of PTZ-induced seizures using wavelet-based residual entropy of cortical and subcortical field potentials. IEEE Transactions on Biomedical Engineering, 2003, 50, 640-648.	2.5	23
17	Novel Classification System for Classifying Cognitive Workload Levels Under Vague Visual Stimulation. IEEE Sensors Journal, 2017, 17, 7019-7028.	2.4	20
18	Discrimination of Genuine and Acted Emotional Expressions Using EEG Signal and Machine Learning. IEEE Access, 2020, 8, 191080-191089.	2.6	20

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19	Cardiac arrhythmia classification using neural networks. Technology and Health Care, 2000, 8, 363-372.	0.5	18
20	Thermal model of MOSFET with SELBOX structure. Journal of Computational Electronics, 2013, 12, 803-811.	1.3	18
21	Noninvasive beat-to-beat detection of ventricular late potentials. Medical and Biological Engineering and Computing, 1989, 27, 64-68.	1.6	17
22	ECG data compression using adaptive Fourier coefficients estimation. Medical Engineering and Physics, 1994, 16, 62-66.	0.8	17
23	Beat-to-beat detection of His-Purkinje system signals using adaptive filters. Medical and Biological Engineering and Computing, 1988, 26, 117-125.	1.6	15
24	Wavelet entropy method for EEG analysis: application to global brain injury. , 0, , .		14
25	Cognitive workload estimation due to vague visual stimuli using saccadic eye movements. , 2014, 2014, 2993-6.		14
26	Internet of things based multiâ€sensor patient fall detection system. Healthcare Technology Letters, 2019, 6, 132-137.	1.9	14
27	Surface myoelectric signal classification for prostheses control. Journal of Medical Engineering and Technology, 2005, 29, 203-207.	0.8	13
28	Natural Progression of Spinal Cord Transection Injury and Reorganization of Neural Pathways. Journal of Neurotrauma, 2016, 33, 2191-2201.	1.7	13
29	Characterization of transection spinal cord injuries by monitoring somatosensory evoked potentials and motor behavior. Brain Research Bulletin, 2020, 156, 150-163.	1.4	13
30	Stress management using fNIRS and binaural beats stimulation. Biomedical Optics Express, 2022, 13, 3552.	1.5	13
31	Analysis of Kink Reduction in SOI MOSFET Using Selective Back Oxide Structure. Active and Passive Electronic Components, 2012, 2012, 1-9.	0.3	12
32	Development and Characterization of Novel Composite and Flexible Electrode Based on Titanium Dioxide. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 1079-1087.	1.4	12
33	ECG response of the human body subjected to vibrations. Journal of Medical Engineering and Technology, 1996, 20, 2-10.	0.8	11
34	The effect of anaesthesia on somatosensory evoked potential measurement in a rat model. Laboratory Animals, 2016, 50, 63-66.	0.5	11
35	Fabrication of titanium dioxide nanomaterial for implantable highly flexible composite bioelectrode for biosensing applications. Chemosphere, 2021, 273, 129680.	4.2	11
36	Cognitive Vigilance Enhancement Using Audio Stimulation of Pure Tone at 250 Hz. IEEE Access, 2021, 9, 22955-22970.	2.6	11

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37	Transfer-Function-Based Calibration of Sparse EEG Systems for Brain Source Localization. IEEE Sensors Journal, 2015, 15, 1504-1514.	2.4	10
38	Role of multisensory stimuli in vigilance enhancement- a single trial event related potential study. , 2017, 2017, 2446-2449.		10
39	Fetal ECG extraction from a single abdominal ECG signal using SVD and polynomial classifiers. , 2008, , .		9
40	Fetal ECG Signal Enhancement using Polynomial Classifiers and Wavelet Denoising. , 2008, , .		9
41	Histogram based quantification of spinal cord injury level using somatosensory evoked potentials. , 2010, 2010, 4942-5.		9
42	Prolonged Local Hypothermia Has No Long-Term Adverse Effect on the Spinal Cord. Therapeutic Hypothermia and Temperature Management, 2015, 5, 152-162.	0.3	9
43	Automatic Parametrization of Somatosensory Evoked Potentials With Chirp Modeling. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 981-992.	2.7	9
44	Quantitative monitoring of bone healing process using ultrasound. Journal of the Franklin Institute, 2006, 343, 495-500.	1.9	8
45	Novel Modeling of Somatosensory Evoked Potentials for the Assessment of Spinal Cord Injury. IEEE Transactions on Biomedical Engineering, 2018, 65, 511-520.	2.5	8
46	Improving electrical engineering education at the American University of Sharjah through continuous assessment. European Journal of Engineering Education, 2009, 34, 15-28.	1.5	7
47	Effect of isoflurane on somatosensory evoked potentials in a rat model. , 2014, 2014, 4286-9.		7
48	Measuring vigilance decrement using computer vision assisted eye tracking in dynamic naturalistic environments. , 2017, 2017, 2478-2481.		7
49	Novel flexible implantable electrodes based on conductive polymers and Titanium dioxide. , 2018, , .		7
50	Comparative analysis of functional assessment for contusion and transection models of spinal cord injury. Spinal Cord, 2021, 59, 1206-1209.	0.9	7
51	Novel near-field microwave bone healing monitoring using open-ended rectangular waveguides. , 2006, , .		6
52	ERP signal estimation from single trial EEG. , 2014, 2014, 2989-92.		6
53	Eye tracking and EEG synchronization to analyze microsaccades during a workload task. , 2015, 2015, 7994-7.		6
54	Brain Source Localization Using Stochastic Gradient Descent. IEEE Sensors Journal, 2021, 21, 8375-8383.	2.4	6

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55	Highly Flexible Polyaniline-Based Implantable Electrode Materials for Neural Sensing/Stimulation Applications. Electronic Materials, 2021, 2, 413-427.	0.9	6
56	The Analytic Bilinear Discrimination of Single-Trial EEG Signals in Rapid Image Triage. PLoS ONE, 2014, 9, e100097.	1.1	6
57	Asymmetry of Regional Phase Synchrony Cortical Networks Under Cognitive Alertness and Vigilance Decrement States. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2378-2387.	2.7	6
58	ECG data compression using Hebbian neural networks. Journal of Medical Engineering and Technology, 1996, 20, 211-218.	0.8	5
59	Detection and Assessment of Spinal Cord Injury Using Spectral Coherence. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1426-9.	0.5	5
60	Studies and minimization of kink effect in SOI MOSFET devices with SELBOX structure. , 2008, , .		5
61	Quantification of Spinal Cord Injury Level Using Somatosensory Evoked Potentials. International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering, 2010, , .	0.0	5
62	Assessment of retinopathy severity using digital fundus images. , 2011, , .		5
63	Spinal cord injury evaluation using morphological difference of somatosensory evoked potentials. , 2011, , .		5
64	Extracting fetal ECG from a single maternal abdominal record. , 2015, , .		5
65	Medical equipment efficient failure management in IoT environment. , 2018, , .		5
66	Stress Assessment and Mitigation using fNIRS and Binaural Beat Stimulation. , 2021, , .		5
67	Improved Cognitive Vigilance Assessment after Artifact Reduction with Wavelet Independent Component Analysis. Sensors, 2022, 22, 3051.	2.1	5
68	Statistical Mapping of Speckle Autocorrelation for Visualization of Hyperaemic Responses to Cortical Stimulation. Annals of Biomedical Engineering, 2006, 34, 1107-1118.	1.3	4
69	Design of low frequency highpass filter using pseudo resistors. , 2011, , .		4
70	Cortical Source Localization and Signal Estimation Without Exact Knowledge of the Leadfield Matrix. IEEE Sensors Journal, 2017, 17, 450-458.	2.4	4
71	Trading baseline with forelimbs somatosensory evoked potential for longitudinal analysis in thoracic transection spinal cord injury. Journal of Neuroscience Methods, 2020, 343, 108858.	1.3	4
72	Effect of thoracic spinal cord injury on forelimb somatosensory evoked potential. Brain Research Bulletin, 2021, 173, 22-27.	1.4	4

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73	Towards an assessment of bone fracture healing using pulsed mode ultrasound. Technology and Health Care, 2011, 19, 261-269.	0.5	3
74	Frequency response of MOS devices with SELBOX structure. , 2012, , .		3
75	Generalised correlation index for quantifying signal morphological similarity. Electronics Letters, 2016, 52, 1832-1834.	0.5	3
76	Assessment of Spinal Cord Injury via Sparse Modeling of Somatosensory Evoked Potential Signals. , 2017, , .		3
77	Comparison Between Independent Component Analysis and Wiener-Hopf Filter Techniques for Eye Blink Removal. , 2020, , .		3
78	Connectivity Analysis under Mental Stress using fNIRS. , 2021, , .		3
79	Effect of vibrations with two different amplitudes on the ECG. Journal of Medical Engineering and Technology, 1997, 21, 135-140.	0.8	2
80	Myoelectric signal segmentation and classification using wavelets based neural networks. , 0, , .		2
81	Spectral Subtraction and Cepstral Distance for Enhancing EEG Entropy. , 2005, 2005, 2751-4.		2
82	Brain computer interface as a forensic tool. , 2008, , .		2
83	Kink reduction using selective back oxide structure. , 2009, , .		2
84	Assessment of Bilateral SSEP Signals Enhancement following Transectional Spinal Cord Injury Using Linear Modeling. IFMBE Proceedings, 2015, , 1219-1219.	0.2	2
85	Minimization of self-heating in SOI MOSFET devices with SELBOX structure. , 2016, , .		2
86	Modeling and simulation of static power dissipation in CMOS with SELBOX structure. , 2017, , .		2
87	Static power characteristics of selective buried oxide CMOS devices. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2460.	1.2	2
88	TCAD Simulation and Analysis of Selective Buried Oxide MOSFET Dynamic Power. Journal of Low Power Electronics and Applications, 2019, 9, 29.	1.3	2
89	Using Variations of Somatosensory Evoked Potentials to Quantify Spinal Cord Injury Level. Engineering, 2013, 05, 99-102.	0.4	2
90	Calibration of Low Density EEG Sensor Arrays for Brain Source Localization. Lecture Notes in Computer Science, 2012, , 331-338.	1.0	2

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91	Sudden infant death syndrome detector. Technology and Health Care, 1997, 5, 461-469.	0.5	1
92	Inverse problem in geometrical modeling of the sources of medical signals. , 1999, , .		1
93	The effect of the whitening matrix in determining the final solution in blind source separation of biomedical signals. , 0, , .		1
94	A Novel Methodology for Fetal Heart Rate Extraction from the Abdominal Electrocardiogram. , 2008, , .		1
95	Intensity Histogram of <I>B</I>-Mode Ultrasound for the Quantification of Bone Healing Process. Journal of Medical Imaging and Health Informatics, 2012, 2, 139-146.	0.2	1
96	Circuit model for SelBox MOSFET. , 2012, , .		1
97	Visual aid for Optic Nerve Hypoplasia patients. , 2014, , .		1
98	Group projects in foundation electrical engineering courses: Do they help, harm or make no difference to the studentsâ€™ learning experience?. International Journal of Electrical Engineering and Education, 2016, 53, 305-313.	0.4	1
99	An Intraoral Camera for Supporting Assistive Devices. IEEE Sensors Journal, 2021, 21, 8553-8563.	2.4	1
100	Implantable Electrodes Based on Poly-aniline (PANI) and Silicone for Neural Sensing/Stimulations. , 2020, , .		1
101	Artifact Removal of Eye Tracking Data for the Assessment of Cognitive Vigilance Levels. , 2021, , .		1
102	Neuroprotective Role of Hypothermia in Acute Spinal Cord Injury. Biomedicines, 2022, 10, 104.	1.4	1
103	Three-dimensional model for the simulation of the HPS electrogram. Bio-Medical Materials and Engineering, 1997, 7, 401-10.	0.4	1
104	New method for estimating explosive anaerobic leg power. Journal of Biomedical Engineering, 1993, 15, 430-434.	0.7	0
105	Direct and inverse problems in simulation of human ventricular conduction system electrograms. , 0, , .		0
106	Using Future Search Conference for e-Learning Strategy Formulation in Higher Education. , 0, , .		0
107	Monitoring of global cerebral ischemia using instantaneous phase variation plots. , 2008, 2008, 4182-5.		0
108	Introducing undergraduate students to simulation of semiconductor doping techniques. Computers and Electrical Engineering, 2009, 35, 567-577.	3.0	0

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109	Prototype of a standalone Fetal ECG monitor. , 2010, , .		0
110	Selected Peer-Reviewed Articles from First Middle East Conference on Biomedical Engineering (MECBME). Journal of Medical Imaging and Health Informatics, 2011, 1, 197-198.	0.2	0
111	Quantification of the bone healing process using information of B-Mode ultrasound image. , 2012, 2012, 4442-5.		0
112	Non-invasive blood glucose measurement using transmission spectroscopy. , 2013, , .		0
113	Brain source localization in the presence of leadfield perturbations. , 2014, 2014, 4551-4.		0
114	Vigilance Differentiation from EEG ComplexityÂAttributes. Lecture Notes in Computer Science, 2015, , 199-206.	1.0	0
115	Epileptogenic Foci Time Varying Source Loca1ization Using Source Affine Image Reconstruction (SAFFIRE) Algorithm. , 2019, , .		0
116	Discerning Genuine and Acted Smiles Using Neural Networks. , 2019, , .		0
117	Bio-electrodes Based on Poly(methy1 methacrylate) (PMMA) for Neural Sensing. , 2020, , .		0
118	Sudden infant death syndrome detector. Technology and Health Care, 1997, 5, 461-9.	0.5	0
119	Cardiac arrhythmia classification using neural networks. Technology and Health Care, 2000, 8, 363-72.	0.5	0