

# Alexander J Casson

## List of Publications by Year in descending order

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Version: 2024-02-01

85  
papers

3,091  
citations

257101

24  
h-index

205818

48  
g-index

89  
all docs

89  
docs citations

89  
times ranked

3433  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully printed and multifunctional graphene-based wearable e-textiles for personalized healthcare applications. <i>IScience</i> , 2022, 25, 103945.	1.9	40
2	Directly conductive, flexible, 3D printed, EEG electrodes. , 2022, , .		3
3	Screen Printed, Skin-compliant Sensors for Mouse Electrocardiography. , 2022, , .		2
4	Adaptive Symptom Monitoring Using Hidden Markov Models â€“ An Application in Ecological Momentary Assessment. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 1770-1780.	3.9	8
5	Gait Spatiotemporal Signal Analysis for Parkinsonâ€™s Disease Detection and Severity Rating. <i>IEEE Sensors Journal</i> , 2021, 21, 1838-1848.	2.4	33
6	Alpha entrainment drives pain relief using visual stimulation in a sample of chronic pain patients: a proof-of-concept controlled study. <i>NeuroReport</i> , 2021, 32, 394-398.	0.6	7
7	Monitoring of Dynamic Plantar Foot Temperatures in Diabetes with Personalised 3D-Printed Wearables. <i>Sensors</i> , 2021, 21, 1717.	2.1	11
8	Motion artefact removal in electroencephalography and electrocardiography by using multichannel inertial measurement units and adaptive filtering. <i>Healthcare Technology Letters</i> , 2021, 8, 128-138.	1.9	9
9	Opportunities and challenges for flexible and printable electrodes in electroencephalography. , 2021, , .		2
10	Spatiotemporal Analysis by Deep Learning of Gait Signatures From Floor Sensors. <i>IEEE Sensors Journal</i> , 2021, 21, 16904-16914.	2.4	3
11	Edge algorithms for wearables: an overview of a truly multi-disciplinary problem. , 2021, , 379-414.		4
12	Investigating Gelatine Based Head Phantoms for Electroencephalography Compared to Electrical and Ex Vivo Porcine Skin Models. <i>IEEE Access</i> , 2021, 9, 96722-96738.	2.6	11
13	Design and optimization of a TensorFlow Lite deep learning neural network for human activity recognition on a smartphone. , 2021, 2021, 7028-7031.		6
14	Impact of shift working on the potential for self-powering via kinetic energy harvesting in wearable devices. , 2021, 2021, 7003-7006.		1
15	Examining the optimal timing for closed-loop auditory stimulation of slow-wave sleep in young and older adults. <i>Sleep</i> , 2020, 43, .	0.6	42
16	Machine learning validation of EEG+tACS artefact removal. <i>Journal of Neural Engineering</i> , 2020, 17, 016034.	1.8	11
17	Instructions to attend to an observed action increase imitation in autistic adults. <i>Autism</i> , 2020, 24, 730-743.	2.4	9
18	Entraining Alpha Activity Using Visual Stimulation in Patients With Chronic Musculoskeletal Pain: A Feasibility Study. <i>Frontiers in Neuroscience</i> , 2020, 14, 828.	1.4	13

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19	A smartphone based platform for portable non-invasive light and sound neuromodulation. , 2020, 2020, 5228-5231.		5
20	Inertial Kinetic Energy Harvesters for Wearables: The Benefits of Energy Harvesting at the Foot. IEEE Access, 2020, 8, 208136-208148.	2.6	11
21	Effects of neurofeedback in the management of chronic pain: A systematic review and meta-analysis of clinical trials. European Journal of Pain, 2020, 24, 1440-1457.	1.4	35
22	The Reflectance of Human Skin in the Millimeter-Wave Band. Sensors, 2020, 20, 1480.	2.1	20
23	Using EEG Alpha States to Understand Learning During Alpha Neurofeedback Training for Chronic Pain. Frontiers in Neuroscience, 2020, 14, 620666.	1.4	5
24	Applying Machine Learning to Kinematic and Eye Movement Features of a Movement Imitation Task to Predict Autism Diagnosis. Scientific Reports, 2020, 10, 8346.	1.6	41
25	Implementation of a batch normalized deep LSTM recurrent network on a smartphone for human activity recognition. , 2019, , .		3
26	Nine degree of freedom motion estimation for wrist PPG heart rate measurements. , 2019, 2019, 3231-3234.		0
27	Machine learning algorithm validation with a limited sample size. PLoS ONE, 2019, 14, e0224365.	1.1	771
28	A Graphene-Based Sleep Mask for Comfortable Wearable Eye Tracking. , 2019, 2019, 6693-6696.		6
29	Design and Implementation of a Convolutional Neural Network on an Edge Computing Smartphone for Human Activity Recognition. IEEE Access, 2019, 7, 133509-133520.	2.6	59
30	Removal of Gross Artifacts of Transcranial Alternating Current Stimulation in Simultaneous EEG Monitoring. Sensors, 2019, 19, 190.	2.1	41
31	Flexible 3D-Printed EEG Electrodes. Sensors, 2019, 19, 1650.	2.1	31
32	Downsampling wearable sensor data packets by measuring their information value. , 2019, , .		0
33	Wearable EEG and beyond. Biomedical Engineering Letters, 2019, 9, 53-71.	2.1	151
34	Electroencephalogram. , 2018, , 45-81.		23
35	Performance of graphene ECG electrodes under varying conditions. , 2018, 2018, 3813-3816.		9
36	Enabling Free Movement EEG Tasks by Eye Fixation and Gyroscope Motion Correction: EEG Effects of Color Priming in Dress Shopping. IEEE Access, 2018, 6, 62975-62987.	2.6	8

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37	An Exploration of Behind-the-Ear ECG Signals From a Single Ear Using Inkjet Printed Conformal Tattoo Electrodes. , 2018, 2018, 1283-1286.		9
38	An Ultra Low Power Personalizable Wrist Worn ECG Monitor Integrated With IoT Infrastructure. IEEE Access, 2018, 6, 44010-44021.	2.6	63
39	Five Day Attachment ECG Electrodes for Longitudinal Bio-Sensing Using Conformal Tattoo Substrates. IEEE Sensors Journal, 2017, 17, 2205-2214.	2.4	25
40	Towards Photoplethysmography-Based Estimation of Instantaneous Heart Rate During Physical Activity. IEEE Transactions on Biomedical Engineering, 2017, 64, 2042-2053.	2.5	48
41	All inkjet-printed graphene-based conductive patterns for wearable e-textile applications. Journal of Materials Chemistry C, 2017, 5, 11640-11648.	2.7	217
42	Energy efficient heart rate sensing using a painted electrode ECG wearable. , 2017, , .		17
43	Towards signal processing assisted hardware for continuous in-band electrode impedance monitoring (Invited paper). , 2017, , .		4
44	Description of a Database Containing Wrist PPG Signals Recorded during Physical Exercise with Both Accelerometer and Gyroscope Measures of Motion. Data, 2017, 2, 1.	1.2	78
45	3D Printed Dry EEG Electrodes. Sensors, 2016, 16, 1635.	2.1	77
46	Gyroscope vs. accelerometer measurements of motion from wrist PPG during physical exercise. ICT Express, 2016, 2, 175-179.	3.3	42
47	Estimation of heart rate from foot worn photoplethysmography sensors during fast bike exercise. , 2016, 2016, 3155-2158.		17
48	An Analog Circuit Approximation of the Discrete Wavelet Transform for Ultra Low Power Signal Processing in Wearable Sensor Nodes. Sensors, 2015, 15, 31914-31929.	2.1	10
49	The impact of signal normalization on seizure detection using line length features. Medical and Biological Engineering and Computing, 2015, 53, 929-942.	1.6	33
50	Inkjet printed ECG electrodes for long term biosignal monitoring in personalized and ubiquitous healthcare. , 2015, 2015, 4013-6.		12
51	Removal of Transcranial a.c. Current Stimulation artifact from simultaneous EEG recordings by superposition of moving averages. , 2015, 2015, 3436-9.		15
52	Towards out-of-the-lab EEG in uncontrolled environments: Feasibility study of dry EEG recordings during exercise bike riding. , 2015, 2015, 1025-8.		7
53	Opportunities and challenges for ultra low power signal processing in wearable healthcare. , 2015, , .		10
54	Artificial Neural Network classification of operator workload with an assessment of time variation and noise-enhancement to increase performance. Frontiers in Neuroscience, 2014, 8, 372.	1.4	21

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55	Performance of wrist based electrocardiography with conventional ECG analysis algorithms. , 2014, , .		2
56	Wearable Algorithms. , 2014, , 353-382.		6
57	A Low Power Linear Phase Programmable Long Delay Circuit. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 432-441.	2.7	5
58	Compression in Wearable Sensor Nodes: Impacts of Node Topology. IEEE Transactions on Biomedical Engineering, 2014, 61, 1080-1090.	2.5	20
59	Discriminating between best performing features for seizure detection and data selection. , 2013, 2013, 1692-5.		6
60	Towards Noise-Enhanced Augmented Cognition. Lecture Notes in Computer Science, 2013, , 259-268.	1.0	2
61	Improving seizure detection performance reporting: Analysing the duration needed for a detection. , 2012, 2012, 1069-72.		3
62	Signal agnostic compressive sensing for Body Area Networks: Comparison of signal reconstructions. , 2012, 2012, 4497-500.		19
63	Compressive sensing scalp EEG signals: implementations and practical performance. Medical and Biological Engineering and Computing, 2012, 50, 1137-1145.	1.6	76
64	Optimal features for online seizure detection. Medical and Biological Engineering and Computing, 2012, 50, 659-669.	1.6	102
65	A 60 pW $g_{m}$ Continuous Wavelet Transform Circuit for Portable EEG Systems. IEEE Journal of Solid-State Circuits, 2011, 46, 1406-1415.	3.5	65
66	A Review and Modern Approach to LC Ladder Synthesis. Journal of Low Power Electronics and Applications, 2011, 1, 20-44.	1.3	16
67	Utilising noise to improve an interictal spike detector. Journal of Neuroscience Methods, 2011, 201, 262-268.	1.3	13
68	A Subhertz Nanopower Low-Pass Filter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 351-355.	2.2	41
69	Assessing the impact of signal normalization: Preliminary results on epileptic seizure detection. , 2011, 2011, 1439-42.		7
70	Hardware aware algorithm performance and the low power continuous wavelet transform. , 2011, , .		1
71	Wearable Electroencephalography. IEEE Engineering in Medicine and Biology Magazine, 2010, 29, 44-56.	1.1	303
72	Low power signal processing electronics for wearable medical devices. , 2010, 2010, 3439-40.		3

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73	An introduction to future truly wearable medical devices&#x2014;From application to ASIC. , 2010, 2010, 3430-1.		6
74	Quantifying the performance of compressive sensing on scalp EEG signals. , 2010, , .		17
75	Standard filter approximations for low power Continuous Wavelet Transforms. , 2010, 2010, 646-9.		0
76	Toward Online Data Reduction for Portable Electroencephalography Systems in Epilepsy. IEEE Transactions on Biomedical Engineering, 2009, 56, 2816-2825.	2.5	46
77	Performance metrics for the accurate characterisation of interictal spike detection algorithms. Journal of Neuroscience Methods, 2009, 177, 479-487.	1.3	33
78	An inverse filter realisation of a single scale Inverse continuous wavelet transform. , 2008, , .		3
79	On data reduction in EEG monitoring: Comparison between ambulatory and non-ambulatory recordings. , 2008, 2008, 5885-8.		5
80	Considerations on Analogue to Digital Converter Architectures for EEG Acquisition in Augmented Cognition Applications. Proceedings of the Human Factors and Ergonomics Society, 2008, 52, 197-201.	0.2	0
81	Generic vs custom; analogue vs digital: On the implementation of an online EEG signal processing algorithm. , 2008, 2008, 5876-80.		9
82	Wearable EEG: what is it, why is it needed and what does it entail?. , 2008, 2008, 5867-70.		58
83	An analogue bandpass filter realisation of the Continuous Wavelet Transform. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1850-4.	0.5	22
84	Data reduction techniques to facilitate wireless and long term AEEG epilepsy monitoring. , 2007, , .		29
85	Algorithm for AEEG data selection leading to wireless and long term epilepsy monitoring. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2456-9.	0.5	20