

# Kai Keng Ang

## List of Publications by Year in descending order

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162  
papers

6,931  
citations

136740  
32  
h-index

138251  
58  
g-index

163  
all docs

163  
docs citations

163  
times ranked

4674  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficacy of Brain-Computer Interface and the Impact of Its Design Characteristics on Poststroke Upper-limb Rehabilitation: A Systematic Review and Meta-analysis of Randomized Controlled Trials. <i>Clinical EEG and Neuroscience</i> , 2022, 53, 79-90.	0.9	20
2	A Transfer Learning Algorithm to Reduce Brain-Computer Interface Calibration Time for Long-Term Users. <i>Frontiers in Neuroergonomics</i> , 2022, 3, .	0.6	3
3	Generative Adversarial Networks-Based Data Augmentation for Brain-Computer Interface. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2021, 32, 4039-4051.	7.2	85
4	Brain-Computer Interface for Stroke Rehabilitation. , 2021, , 1-31.		1
5	Task-related brain functional network reconfigurations relate to motor recovery in chronic subcortical stroke. <i>Scientific Reports</i> , 2021, 11, 8442.	1.6	19
6	Brain Functional Changes in Stroke Following Rehabilitation Using Brain-Computer Interface-Assisted Motor Imagery With and Without tDCS: A Pilot Study. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 692304.	1.0	16
7	Assessment of the Efficacy of EEG-Based MI-BCI With Visual Feedback and EEG Correlates of Mental Fatigue for Upper-Limb Stroke Rehabilitation. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 786-795.	2.5	112
8	Investigating different stress-relief methods using Electroencephalogram (EEG). , 2020, 2020, 2999-3002.		9
9	Weighted Transfer Learning of Dynamic Time Warped Data for Motor Imagery based Brain Computer Interfaces. , 2020, 2020, 2977-2980.		1
10	Using Transcranial Direct Current Stimulation to Augment the Effect of Motor Imagery-Assisted Brain-Computer Interface Training in Chronic Stroke Patientsâ€”Cortical Reorganization Considerations. <i>Frontiers in Neurology</i> , 2020, 11, 948.	1.1	21
11	Brain-Computer Interface-Based Soft Robotic Glove Rehabilitation for Stroke. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 3339-3351.	2.5	74
12	A Subject-to-subject Transfer Learning Framework Based on Jensen-Shannon Divergence for Improving Brain-computer Interface. , 2019, , .		12
13	Mindfulness and hemodynamics in asians: a literature review. <i>Asian Journal of Psychiatry</i> , 2019, 44, 112-118.	0.9	6
14	Weighted Transfer Learning for Improving Motor Imagery-Based Brain-Computer Interface. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1352-1359.	2.7	108
15	Prognostic and Monitory EEG-Biomarkers for BCI Upper-Limb Stroke Rehabilitation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1654-1664.	2.7	58
16	Rapid Detection of Inactive Channels during Multi-unit Intracranial Recordings. , 2019, , .		2
17	Image-based Motor Imagery EEG Classification using Convolutional Neural Network. , 2019, , .		9
18	Towards EEG Generation Using GANs for BCI Applications. , 2019, , .		28

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19	An iterative cross-subject negative-unlabeled learning algorithm for quantifying passive fatigue. Journal of Neural Engineering, 2019, 16, 056013.	1.8	18
20	Inter-subject transfer learning with an end-to-end deep convolutional neural network for EEG-based BCI. Journal of Neural Engineering, 2019, 16, 026007.	1.8	153
21	Differential Amplitude of Low-Frequency Fluctuations in brain networks after BCI Training with and without tDCS in Stroke. , 2018, 2018, 1050-1053.		5
22	EEG-based discrimination of different cognitive workload levels from mental arithmetic. , 2018, 2018, 1984-1987.		17
23	Quantitative EEG as Biomarkers for the Monitoring of Post-Stroke Motor Recovery in BCI and tDCS Rehabilitation. , 2018, 2018, 3610-3613.		15
24	Robust Local Field Potential-based Neural Decoding by Actively Selecting Discriminative Channels. , 2018, 2018, 1992-1995.		1
25	Modeling EEG-based Motor Imagery with Session to Session Online Adaptation. , 2018, 2018, 1988-1991.		9
26	Wavlet phase-locking based binary classification of hand movement directions from EEG. Journal of Neural Engineering, 2018, 15, 066008.	1.8	25
27	Facilitating motor imagery-based brain-computer interface for stroke patients using passive movement. Neural Computing and Applications, 2017, 28, 3259-3272.	3.2	41
28	A Unified Fisher's Ratio Learning Method for Spatial Filter Optimization. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 2727-2737.	7.2	14
29	Discriminative Ocular Artifact Correction for Feature Learning in EEG Analysis. IEEE Transactions on Biomedical Engineering, 2017, 64, 1906-1913.	2.5	30
30	EEG-Based Strategies to Detect Motor Imagery for Control and Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 392-401.	2.7	177
31	Reject option to reduce false prediction rates for EEG-motor imagery based BCI. , 2017, 2017, 2964-2967.		1
32	Brain plasticity following MI-BCI training combined with tDCS in a randomized trial in chronic subcortical stroke subjects: a preliminary study. Scientific Reports, 2017, 7, 9222.	1.6	51
33	Correlation of reaction time and EEG log bandpower from dry frontal electrodes in a passive fatigue driving simulation experiment. , 2017, 2017, 2482-2485.		9
34	Personalized features for attention detection in children with Attention Deficit Hyperactivity Disorder. , 2017, 2017, 414-417.		9
35	Boosting performance in brain-machine interface by classifier-level fusion based on accumulative training models from multi-day data. , 2017, 2017, 1922-1925.		4
36	Stop state classification in intracortical brain-machine-interface. , 2017, 2017, 1926-1929.		1

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37	Prefrontal cortical activation while viewing urban and garden scenes: A pilot fNIRS study. , 2017, 2017, 2546-2549.		14
38	Binary classification of hand movement directions from EEG using wavelet phase-locking. , 2017, , .		8
39	Independent Mobility Achieved through a Wireless Brain-Machine Interface. PLoS ONE, 2016, 11, e0165773.	1.1	30
40	ieRSPOP: A novel incremental rough set-based pseudo outer-product with ensemble learning. Applied Soft Computing Journal, 2016, 46, 170-186.	4.1	26
41	Adaptive decoding using local field potentials in a brain-machine interface. , 2016, 2016, 5721-5724.		1
42	Neural and cortical analysis of swallowing and detection of motor imagery of swallow for dysphagia rehabilitationâ€”A review. Progress in Brain Research, 2016, 228, 185-219.	0.9	17
43	Spatial filter subspace optimization based on mutual information. , 2015, , .		0
44	A measurement of motor recovery for motor imagery-based BCI using EEG coherence analysis. , 2015, , .		1
45	Determining mechanical and electromyographical reaction time in a BCI driving fatigue experiment. , 2015, , .		2
46	Combining firing rate and spike-train synchrony features in the decoding of motor cortical activity. , 2015, 2015, 1091-4.		1
47	A subject-independent pattern-based Brain-Computer Interface. Frontiers in Behavioral Neuroscience, 2015, 9, 269.	1.0	39
48	Brainâ€”Computer Interface for Neurorehabilitation of Upper Limb After Stroke. Proceedings of the IEEE, 2015, 103, 944-953.	16.4	101
49	On the use of convolutional neural networks and augmented CSP features for multi-class motor imagery of EEG signals classification. , 2015, 2015, 2620-3.		66
50	An analysis on driver drowsiness based on reaction time and EEG band power. , 2015, 2015, 7982-5.		11
51	Facilitating Effects of Transcranial Direct Current Stimulation on Motor Imagery Brain-Computer Interface With Robotic Feedback for Stroke Rehabilitation. Archives of Physical Medicine and Rehabilitation, 2015, 96, S79-S87.	0.5	118
52	Towards improvement of MI-BCI performance of subjects with BCI deficiency. , 2015, , .		8
53	Dynamic screening of autistic children in various mental states using pattern of connectivity between brain regions. Applied Soft Computing Journal, 2015, 32, 335-346.	4.1	6
54	Neural representations of movement intentions during brain-controlled self-motion. , 2015, , .		5

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55	Motor cortical adaptation induced by closed-loop BCI. , 2015, , .		1
56	Detection of motor imagery of brisk walking from electroencephalogram. Journal of Neuroscience Methods, 2015, 244, 33-44.	1.3	13
57	A Randomized Controlled Trial of EEG-Based Motor Imagery Brain-Computer Interface Robotic Rehabilitation for Stroke. Clinical EEG and Neuroscience, 2015, 46, 310-320.	0.9	389
58	Brain-computer interface-based robotic end effector system for wrist and hand rehabilitation: results of a three-armed randomized controlled trial for chronic stroke. Frontiers in Neuroengineering, 2014, 7, 30.	4.8	252
59	Spatial filter adaptation based on the divergence framework for motor imagery EEG classification. , 2014, 2014, 1847-50.		0
60	Single-trial classification of NIRS data from prefrontal cortex during working memory tasks. , 2014, 2014, 2008-11.		3
61	On the asynchronously continuous control of mobile robot movement by motor cortical spiking activity. , 2014, 2014, 3049-52.		4
62	Quality assessment of EEG signals based on statistics of signal fluctuations. , 2014, , .		2
63	Cortical activation of passive hand movement using Haptic Knob: A preliminary multi-channel fNIRS study. , 2014, 2014, 2097-100.		1
64	Selection of effective EEG channels in brain computer interfaces based on inconsistencies of classifiers. , 2014, 2014, 672-5.		3
65	Discriminative channel addition and reduction for filter bank common spatial pattern in motor imagery BCI. , 2014, 2014, 1310-3.		4
66	Mutual information-based optimization of sparse spatio-spectral filters in brain-computer interface. Neural Computing and Applications, 2014, 25, 625-634.	3.2	14
67	Detection of motor imagery of swallow EEG signals based on the dual-tree complex wavelet transform and adaptive model selection. Journal of Neural Engineering, 2014, 11, 035016.	1.8	27
68	Spatial filter adaptation based on geodesic-distance for motor EEG classification. , 2014, , .		1
69	Adaptation of motor imagery EEG classification model based on tensor decomposition. Journal of Neural Engineering, 2014, 11, 056020.	1.8	17
70	Brain-computer interface for neurorehabilitation: Looking beyond upper limbs. , 2014, , .		0
71	The predictive role of pre-cue EEG rhythms on MI-based BCI classification performance. Journal of Neuroscience Methods, 2014, 235, 138-144.	1.3	40
72	ERNN: A Biologically Inspired Feedforward Neural Network to Discriminate Emotion From EEG Signal. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 609-620.	7.2	82

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73	Dynamically weighted ensemble classification for non-stationary EEG processing. Journal of Neural Engineering, 2013, 10, 036007.	1.8	56
74	Discriminative Learning of Propagation and Spatial Pattern for Motor Imagery EEG Analysis. Neural Computation, 2013, 25, 2709-2733.	1.3	11
75	EEG Data Space Adaptation to Reduce Intersession Nonstationarity in Brain-Computer Interface. Neural Computation, 2013, 25, 2146-2171.	1.3	74
76	Motor imagery BCI for upper limb stroke rehabilitation: An evaluation of the EEG recordings using coherence analysis. , 2013, 2013, 261-4.		26
77	A novel hand strength assessment method integrated into haptic knob for stroke rehabilitation. , 2013, , .		3
78	Feature consistency-based model adaptation in session-to-session classification: A study using motor imagery of swallow EEG signals. , 2013, 2013, 429-32.		2
79	Maximum dependency and minimum redundancy-based channel selection for motor imagery of walking EEG signal detection. , 2013, , .		14
80	Navigation in a virtual environment using multiclass motor imagery Brain-Computer Interface. , 2013, , .		5
81	A multimodal fNIRS and EEG-based BCI study on motor imagery and passive movement. , 2013, , .		13
82	Connectivity pattern modeling of motor imagery EEG. , 2013, , .		2
83	Common frequency pattern for music preference identification using frontal EEG. , 2013, , .		21
84	EEG-Based Classification of Fast and Slow Hand Movements Using Wavelet-CSP Algorithm. IEEE Transactions on Biomedical Engineering, 2013, 60, 2123-2132.	2.5	99
85	Optimizing Spatial Filters by Minimizing Within-Class Dissimilarities in Electroencephalogram-Based Brain-Computer Interface. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 610-619.	7.2	112
86	Neural decoding of movement targets by unsorted spike trains. , 2013, , .		0
87	Resting State Changes in Functional Connectivity Correlate With Movement Recovery for BCI and Robot-Assisted Upper-Extremity Training After Stroke. Neurorehabilitation and Neural Repair, 2013, 27, 53-62.	1.4	215
88	Optimizing low-frequency common spatial pattern features for multi-class classification of hand movement directions. , 2013, 2013, 2780-3.		3
89	A forearm pronation/supination assessment method integrated into Haptic Knob for stroke rehabilitation. , 2013, , .		0
90	Improving session-to-session transfer performance of motor imagery-based BCI using adaptive extreme learning machine. , 2013, 2013, 2188-91.		11

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91	A clinical study of motor imagery BCI performance in stroke by including calibration data from passive movement. , 2013, 2013, 6603-6.		4
92	Spatial filter design based on re-estimated projection matrices. , 2013, , .		0
93	Neural representation and identification of reaching targets by spike trains in motor cortex. , 2013, , .		0
94	Automatic selection of neuronal spike detection threshold via smoothed Teager energy histogram. , 2013, , .		4
95	Multi-class EEG classification of voluntary hand movement directions. Journal of Neural Engineering, 2013, 10, 056018.	1.8	55
96	Brain-Computer Interface in Stroke Rehabilitation. Journal of Computing Science and Engineering, 2013, 7, 139-146.	0.3	168
97	Extracting effective features from high density nirs-based BCI for assessing numerical cognition. , 2012, , .		9
98	Prefrontal cortical activation during arithmetic processing differentiated by cultures: A preliminary fNIRS study. , 2012, 2012, 4716-9.		0
99	Fast emotion detection from EEG using asymmetric spatial filtering. , 2012, , .		12
100	Online semi-supervised learning with KL distance weighting for Motor Imagery-based BCI. , 2012, 2012, 2732-5.		16
101	Cluster impurity and forward-backward error maximization-based active learning for EEG signals classification. , 2012, , .		4
102	Learning discriminative patterns for self-paced EEG-based motor imagery detection. Frontiers in Neuroscience, 2012, 6, 7.	1.4	23
103	Dynamic initiation and dual-tree complex wavelet feature-based classification of motor imagery of swallow EEG signals. , 2012, , .		11
104	Robust EEG channel selection across sessions in brain-computer interface involving stroke patients. , 2012, , .		17
105	Asymmetric Spatial Pattern for EEG-based emotion detection. , 2012, , .		62
106	Dynamically Weighted Classification with Clustering to tackle non-stationarity in Brain computer Interfacing. , 2012, , .		2
107	Extracting and selecting discriminative features from high density NIRS-based BCI for numerical cognition. , 2012, , .		10
108	A modified Wavelet-Common Spatial Pattern method for decoding hand movement directions in brain computer interfaces. , 2012, , .		10

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109	Seizure detection based on spatiotemporal correlation and frequency regularity of scalp EEG. , 2012, , .		2
110	Multi-frequency band common spatial pattern with sparse optimization in Brain-Computer Interface. , 2012, , .		4
111	Transcranial direct current stimulation and EEG-based motor imagery BCI for upper limb stroke rehabilitation. , 2012, 2012, 4128-31.		36
112	Omitting the intra-session calibration in EEG-based brain computer interface used for stroke rehabilitation. , 2012, 2012, 4124-7.		13
113	Filter Bank Common Spatial Pattern Algorithm on BCI Competition IV Datasets 2a and 2b. Frontiers in Neuroscience, 2012, 6, 39.	1.4	790
114	Supervised Pseudo Self-Evolving Cerebellar algorithm for generating fuzzy membership functions. Expert Systems With Applications, 2012, 39, 2279-2287.	4.4	8
115	Mutual information-based selection of optimal spatialâ€”temporal patterns for single-trial EEG-based BCIs. Pattern Recognition, 2012, 45, 2137-2144.	5.1	165
116	Stationary Transfer Component Analysis for Brain Computer Interfacing. , 2012, , .		3
117	Real coded GA-based SVM for motor imagery classification in a Brain-Computer Interface. , 2011, , .		1
118	Composite Filter Bank Common Spatial Pattern for motor imagery-based Brain-Computer Interface. , 2011, , .		1
119	A Brain-Computer Interface for classifying EEG correlates of chronic mental stress. , 2011, , .		69
120	Spatially sparsed Common Spatial Pattern to improve BCI performance. , 2011, , .		21
121	Optimum Spatio-Spectral Filtering Network for Brainâ€”Computer Interface. IEEE Transactions on Neural Networks, 2011, 22, 52-63.	4.8	65
122	A Large Clinical Study on the Ability of Stroke Patients to Use an EEG-Based Motor Imagery Brain-Computer Interface. Clinical EEG and Neuroscience, 2011, 42, 253-258.	0.9	289
123	Calibrating EEG-based motor imagery brain-computer interface from passive movement. , 2011, 2011, 4199-202.		8
124	A Wavelet-CSP method to classify hand movement directions in EEG based BCI system. , 2011, , .		20
125	Filter Bank Feature Combination (FBFC) approach for brain-computer interface. , 2011, , .		2
126	Optimizing the Channel Selection and Classification Accuracy in EEG-Based BCI. IEEE Transactions on Biomedical Engineering, 2011, 58, 1865-1873.	2.5	333

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127	Filter Bank Common Spatial Pattern (FBCSP) algorithm using online adaptive and semi-supervised learning. , 2011, , .		18
128	Adaptive tracking of discriminative frequency components in electroencephalograms for a robust brain-computer interface. Journal of Neural Engineering, 2011, 8, 036007.	1.8	26
129	EEG signal separation for multi-class motor imagery using common spatial patterns based on Joint Approximate Diagonalization. , 2010, , .		3
130	An Information Theoretic Linear Discriminant Analysis Method. , 2010, , .		2
131	EEG-based Emotion Recognition Using Self-Organizing Map for Boundary Detection. , 2010, , .		80
132	A Brain-Computer Interface for Mental Arithmetic Task from Single-Trial Near-Infrared Spectroscopy Brain Signals. , 2010, , .		13
133	A synergy of econometrics and computational methods (GARCH-RNFS) for volatility forecasting. , 2010, , .		17
134	Online performance evaluation of motor imagery BCI with augmented-reality virtual hand feedback. , 2010, 2010, 3341-4.		11
135	Clinical study of neurorehabilitation in stroke using EEG-based motor imagery brain-computer interface with robotic feedback. , 2010, 2010, 5549-52.		97
136	Application of rough set-based neuro-fuzzy system in NIRS-based BCI for assessing numerical cognition in classroom. , 2010, , .		6
137	Classification of self-paced finger movements with EEG signals using neural network and evolutionary approaches. , 2009, , .		6
138	Comparison of designs towards a subject-independent brain-computer interface based on motor imagery. , 2009, 2009, 4543-6.		46
139	Learning EEG-based spectral-spatial patterns for attention level measurement. , 2009, , .		65
140	Spatio-spectral feature selection based on robust mutual information estimate for brain computer interfaces. , 2009, 2009, 4978-81.		3
141	Robust filter bank common spatial pattern (RFBCSP) in motor-imagery-based brain-computer interface. , 2009, 2009, 578-81.		11
142	A New Discriminative Common Spatial Pattern Method for Motor Imagery Brain-computer Interfaces. IEEE Transactions on Biomedical Engineering, 2009, 56, 2730-2733.	2.5	251
143	A clinical study of motor imagery-based brain-computer interface for upper limb robotic rehabilitation. , 2009, 2009, 5981-4.		69
144	Affective computation on EEG correlates of emotion from musical and vocal stimuli. , 2009, , .		21

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145	Multi-class filter bank common spatial pattern for four-class motor imagery BCI. , 2009, 2009, 571-4.		46
146	A feasibility study of non-invasive motor-imagery BCI-based robotic rehabilitation for Stroke patients. , 2009, , .		32
147	Digital Signal Processing and Machine Learning. The Frontiers Collection, 2009, , 305-330.	0.1	7
148	Rough Set-Based Neuro-Fuzzy System. , 2009, , 1396-1403.		0
149	Filter Bank Common Spatial Pattern (FBCSP) in Brain-Computer Interface. , 2008, , .		304
150	Augmenting cognitive processes in robot-assisted motor rehabilitation. , 2008, , .		5
151	Multiclass voluntary facial expression classification based on Filter Bank Common Spatial Pattern. , 2008, 2008, 1005-8.		17
152	A clinical evaluation of non-invasive motor imagery-based brain-computer interface in stroke. , 2008, 2008, 4178-81.		18
153	A clinical evaluation on the spatial patterns of non-invasive motor imagery-based brain-computer interface in stroke. , 2008, 2008, 4174-7.		14
154	Stock Trading Using RSPOP: A Novel Rough Set-Based Neuro-Fuzzy Approach. IEEE Transactions on Neural Networks, 2006, 17, 1301-1315.	4.8	105
155	Rough set-based neuro-fuzzy system. , 2006, , .		10
156	RSPOP: Rough Set-Based Pseudo Outer-Product Fuzzy Rule Identification Algorithm. Neural Computation, 2005, 17, 205-243.	1.3	99
157	Popfnn-cri(s): pseudo outer product based fuzzy neural network using the compositional rule of inference and singleton fuzzifier. IEEE Transactions on Systems, Man, and Cybernetics, 2003, 33, 838-849.	5.5	92
158	MCMAC-CVT: a novel on-line associative memory based CVT transmission control system. Neural Networks, 2002, 15, 219-236.	3.3	28
159	Improved MCMAC with momentum, neighborhood, and averaged trapezoidal output. IEEE Transactions on Systems, Man, and Cybernetics, 2000, 30, 491-500.	5.5	23
160	Stock Trading using PSEC and RSPOP: A novel evolving rough set-based neuro-fuzzy approach. , 0, , .		8
161	Rough set-based neuro-fuzzy system. , 0, , .		0
162	MLVQ. , 0, , 485-509.		1