Deniz Erdogmus

List of Publications by Citations

73 papers	2,166 citations	29 h-index	45 g-index
80 ext. papers	2,850 ext. citations	4.5 avg, IF	5.06 L-index

#	Paper	IF	Citations
73	Automated Diagnosis of Plus Disease in Retinopathy of Prematurity Using Deep Convolutional Neural Networks. *JAMA Ophthalmology*, **2018**, 136, 803-810	3.9	246
72	Auto-Context Convolutional Neural Network (Auto-Net) for Brain Extraction in Magnetic Resonance Imaging. *IEEE Transactions on Medical Imaging*, **2017**, 36, 2319-2330	11.7	113
71	Feature extraction using information-theoretic learning. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2006**, 28, 1385-92	13.3	97
70	Noninvasive brain-computer interfaces for augmentative and alternative communication. *IEEE Reviews in Biomedical Engineering*, **2014**, 7, 31-49	6.4	92
69	Computer-Based Image Analysis for Plus Disease Diagnosis in Retinopathy of Prematurity: Performance of the "i-ROP" System and Image Features Associated With Expert Diagnosis. *Translational Vision Science and Technology*, **2015**, 4, 5	3.3	76
68	Asymmetric Loss Functions and Deep Densely Connected Networks for Highly Imbalanced Medical Image Segmentation: Application to Multiple Sclerosis Lesion Detection. *IEEE Access*, **2019**, 7, 721-1735	3.5	73
67	Expert Diagnosis of Plus Disease in Retinopathy of Prematurity From Computer-Based Image Analysis. *JAMA Ophthalmology*, **2016**, 134, 651-7	3.9	68
66	SNR-optimality of sum-of-squares reconstruction for phased-array magnetic resonance imaging. *Journal of Magnetic Resonance*, **2003**, 163, 121-3	3	62
65	RSVP Keyboard: An EEG Based Typing Interface. *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, **2012**,	1.6	61
64	Principal curves as skeletons of tubular objects: locally characterizing the structures of axons. *Neuroinformatics*, **2011**, 9, 181-91	3.2	59
63	From linear adaptive filtering to nonlinear information processing - The design and analysis of information processing systems. *IEEE Signal Processing Magazine*, **2006**, 23, 14-33	9.4	58
62	Evaluation of a deep learning image assessment system for detecting severe retinopathy of prematurity. *British Journal of Ophthalmology*, **2018**,	5.5	53
61	Brain-computer interface with language model-electroencephalography fusion for locked-in syndrome. *Neurorehabilitation and Neural Repair*, **2014**, 28, 387-94	4.7	51
60	A framework for rapid visual image search using single-trial brain evoked responses. *Neurocomputing*, **2011**, 74, 2041-2051	5.4	50
59	The Cauchy–Schwarz divergence and Parzen windowing: Connections to graph theory and Mercer kernels. *Journal of the Franklin Institute*, **2006**, 343, 614-629	4	49
58	Spectral feature projections that maximize Shannon mutual information with class labels. *Pattern Recognition*, **2006**, 39, 1241-1252	7.7	48
57	Vector quantization using information theoretic concepts. *Natural Computing*, **2005**, 4, 39-51	1.3	48

56	Minimax mutual information approach for independent component analysis. *Neural Computation*, **2004**, 16, 1235-52	2.9	45
55	Plus Disease in Retinopathy of Prematurity: A Continuous Spectrum of Vascular Abnormality as a Basis of Diagnostic Variability. *Ophthalmology*, **2016**, 123, 2338-2344	7.3	45
54	Monitoring Disease Progression With a Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning. *JAMA Ophthalmology*, **2019**,	3.9	43
53	Plus Disease in Retinopathy of Prematurity: Improving Diagnosis by Ranking Disease Severity and Using Quantitative Image Analysis. *Ophthalmology*, **2016**, 123, 2345-2351	7.3	43
52	Blind source separation using Renyi□s marginal entropies. *Neurocomputing*, **2002**, 49, 25-38	5.4	40
51	Mean shift spectral clustering. *Pattern Recognition*, **2008**, 41, 1924-1938	7.7	38
50	Lower and Upper Bounds for Misclassification Probability Based on Renyi□s Information. *Journal of Signal Processing Systems*, **2004**, 37, 305-317		38
49	Adversarial Deep Learning in EEG Biometrics. *IEEE Signal Processing Letters*, **2019**, 26, 710-714	3.2	37
48	Modeling and inverse controller design for an unmanned aerial vehicle based on the self-organizing map. *IEEE Transactions on Neural Networks*, **2006**, 17, 445-60		36
47	Automated Fundus Image Quality Assessment in Retinopathy of Prematurity Using Deep Convolutional Neural Networks. *Ophthalmology Retina*, **2019**, 3, 444-450	3.8	31
46	Siamese neural networks for continuous disease severity evaluation and change detection in medical imaging. *Npj Digital Medicine*, **2020**, 3, 48	15.7	31
45	A Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning to Monitor Disease Regression After Treatment. *JAMA Ophthalmology*, **2019**,	3.9	31
44	An analysis of entropy estimators for blind source separation. *Signal Processing*, **2006**, 86, 182-194	4.4	29
43	Predicting aggression to others in youth with autism using a wearable biosensor. *Autism Research*, **2019**, 12, 1286-1296	5.1	28
42	Real-Time Deep Pose Estimation With Geodesic Loss for Image-to-Template Rigid Registration. *IEEE Transactions on Medical Imaging*, **2019**, 38, 470-481	11.7	27
41	Information cut for clustering using a gradient descent approach. *Pattern Recognition*, **2007**, 40, 796-806	7.7	26
40	Learning Invariant Representations from EEG via Adversarial Inference. *IEEE Access*, **2020**, 8, 27074-27085	3.5	25
39	A mutual information extension to the matched filter. *Signal Processing*, **2005**, 85, 927-935	4.4	23

38	Some Equivalences between Kernel Methods and Information Theoretic Methods. *Journal of Signal Processing Systems*, **2006**, 45, 49-65		20
37	Measuring the signal-to-noise ratio in magnetic resonance imaging: a caveat. *Signal Processing*, **2004**, 84, 1035-1040	4.4	19
36	Quasi-sliding mode control strategy based on multiple-linear models. *Neurocomputing*, **2007**, 70, 960-974	3.4	18
35	Optimizing the Cauchy-Schwarz PDF Distance for Information Theoretic, Non-parametric Clustering. *Lecture Notes in Computer Science*, **2005**, 34-45	0.9	17
34	Image construction methods for phased array magnetic resonance imaging. *Journal of Magnetic Resonance Imaging*, **2004**, 20, 306-14	5.6	16
33	Self-Consistent Locally Defined Principal Surfaces **2007**,		14
32	Classification and comparison via neural networks. *Neural Networks*, **2019**, 118, 65-80	9.1	11
31	Beyond second-order statistics for learning: A pairwise interaction model for entropy estimation. *Natural Computing*, **2002**, 1, 85-108	1.3	11
30	Plus Disease in Retinopathy of Prematurity: Convolutional Neural Network Performance Using a Combined Neural Network and Feature Extraction Approach. *Translational Vision Science and Technology*, **2020**, 9, 10	3.3	9
29	**2010**,		9
28	Evaluation of a Deep Learning-Derived Quantitative Retinopathy of Prematurity Severity Scale. *Ophthalmology*, **2021**, 128, 1070-1076	7.3	9
27	Probabilistic Simulation Framework for EEG-Based BCI Design. *Brain-Computer Interfaces*, **2016**, 3, 171-185		9
26	A Fusion Approach for Image Triage using Single Trial ERP Detection **2007**,		7
25	Stochastic error whitening algorithm for linear filter estimation with noisy data. *Neural Networks*, **2003**, 16, 873-80	9.1	7
24	A Neural Network Perspective to Extended Luenberger Observers. *Measurement and Control*, **2002**, 35, 10-16	1.5	7
23	Effects of simulated visual acuity and ocular motility impairments on SSVEP brain-computer interface performance: An experiment with Shuffle Speller. *Brain-Computer Interfaces*, **2018**, 5, 58-72	2	6
22	Information Force Clustering Using Directed Trees. *Lecture Notes in Computer Science*, **2003**, 68-82	0.9	6
21	Disentangled Adversarial Autoencoder for Subject-Invariant Physiological Feature Extraction. *IEEE Signal Processing Letters*, **2020**, 27, 1565-1569	3.2	6

20	Information Theoretic Feature Transformation Learning for Brain Interfaces. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 69-78	5	6
19	Information Theoretic Feature Selection and Projection. *Studies in Computational Intelligence*, **2008**, 1-22	0.8	5
18	Stochastic Mutual Information Gradient Estimation for Dimensionality Reduction Networks. *Information Sciences*, **2021**, 570, 298-305	7.7	5
17	Variability in Plus Disease Identified Using a Deep Learning-Based Retinopathy of Prematurity Severity Scale. *Ophthalmology Retina*, **2020**, 4, 1016-1021	3.8	4
16	SSVEP BCI and Eye Tracking Use by Individuals With Late-Stage ALS and Visual Impairments. *Frontiers in Human Neuroscience*, **2020**, 14, 595890	3.3	4
15	Biosensor prediction of aggression in youth with autism using kernel-based methods **2020**,		3
14	INFORMATION THEORETIC FEATURE PROJECTION FOR SINGLE-TRIAL BRAIN-COMPUTER INTERFACES **2017**, 2017,		2
13	Optimal set of EEG electrodes for rapid serial visual presentation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 4335-8	0.9	2
12	Detecting EEG evoked responses for target image search with mixed effect models. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 4988-91	0.9	2
11	Classification with EEC, Divergence Measures, and Error Bounds. *Information Science and Statistics*, **2010**, 219-261		2
10	**2012**,		1
9	Adaptive Information Filtering with Error Entropy and Error Correntropy Criteria. *Information Science and Statistics*, **2010**, 103-140		1
8	Minimax Mutual Information Approach for ICA of Complex-Valued Linear Mixtures. *Lecture Notes in Computer Science*, **2004**, 311-318	0.9	1
7	Zero-Entropy Minimization for Blind Extraction of Bounded Sources (BEBS). *Lecture Notes in Computer Science*, **2006**, 747-754	0.9	1
6	EEG-based texture roughness classification in active tactile exploration with invariant representation learning networks. *Biomedical Signal Processing and Control*, **2021**, 67, 102507-102507	4.9	0
5	Universal Physiological Representation Learning With Soft-Disentangled Rateless Autoencoders. *IEEE Journal of Biomedical and Health Informatics*, **2021**, 25, 2928-2937	7.2	0
4	Target-Related Alpha Attenuation in a Brain-Computer Interface Rapid Serial Visual Presentation Calibration.. *Frontiers in Human Neuroscience*, **2022**, 16, 882557	3.3	0
3	Improved training efficiency for retinopathy of prematurity deep learning models using comparison versus class labels. *Ophthalmology Science*, **2022**, 100122		

2 Active recursive Bayesian inference using Rényi information measures. *Pattern Recognition Letters*, **2022**, 154, 90-98 4.7

1 Self-Organizing ITL Principles for Unsupervised Learning. *Information Science and Statistics*, **2010**, 299-349