Soumik Sarkar

List of Publications by Year
in descending order

68 papers	3,205 citations	236925 25 h-index	233421 45 g-index
70 all docs	70 docs citations	70 times ranked	3074 citing authors

#	ARTICLE	IF	CITATIONS
1	Rethinking the Formation of Public Distribution System: A Class-Focused Approach. Review of Radical Political Economics, 2022, 54, 26-43.	0.6	1
2	Challenges and Opportunities in Machine-Augmented Plant Stress Phenotyping. Trends in Plant Science, 2021, 26, 53-69.	8.8	92
3	Fast inverse design of microstructures via generative invariance networks. Nature Computational Science, 2021, 1, 229-238.	8.0	23
4	Battery-Free Camera Occupancy Detection System. , 2021, , .		12
5	Deep Multiview Image Fusion for Soybean Yield Estimation in Breeding Applications. Plant Phenomics, 2021, 2021, 9846470.	5.9	28
6	Crop yield prediction integrating genotype and weather variables using deep learning. PLoS ONE, 2021, 16, e0252402.	2.5	74
7	UAS-Based Plant Phenotyping for Research and Breeding Applications. Plant Phenomics, 2021, 2021, 9840192.	5.9	44
8	Using Machine Learning to Develop a Fully Automated Soybean Nodule Acquisition Pipeline (SNAP). Plant Phenomics, 2021, 2021, 9834746.	5.9	18
9	How useful is active learning for image€based plant phenotyping?. The Plant Phenome Journal, 2021, 4, e20020.	2.0	21
10	A high-fidelity residential building occupancy detection dataset. Scientific Data, 2021, 8, 280.	5.3	12
11	WHISPER: Wireless Home Identification and Sensing Platform for Energy Reduction. Journal of Sensor and Actuator Networks, 2021, 10, 71.	3.9	4
12	Two Photon lithography additive manufacturing: Video dataset of parameter sweep of light dosages, photo-curable resins, and structures. Data in Brief, 2020, 32, 106119.	1.0	4
13	Predicting county-scale maize yields with publicly available data. Scientific Reports, 2020, 10, 14957.	3.3	28
14	Robust Deep Reinforcement Learning for Traffic Signal Control. Journal of Big Data Analytics in Transportation, 2020, 2, 263-274.	3.0	11
15	Computer vision and machine learning enabled soybean root phenotyping pipeline. Plant Methods, 2020, 16, 5.	4.3	71
16	Supervisory Control and Distributed Optimization of Building Energy Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	1.6	2
17	Robustifying Reinforcement Learning Agents via Action Space Adversarial Training. , 2020, , .		15
18	Soybean Root System Architecture Trait Study through Genotypic, Phenotypic, and Shape-Based Clusters. Plant Phenomics, 2020, 2020, 1925495.	5.9	40

#	Article	IF	Citations
19	Granger Causality Based Hierarchical Time Series Clustering for State Estimation. IFAC-PapersOnLine, 2020, 53, 524-529.	0.9	3
20	Data-Driven Performance Monitoring of Dynamical Systems Using Granger Causal Graphical Models. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	1.6	0
21	Generalised gossip-based subgradient method for distributed optimisation. International Journal of Control, 2019, 92, 1209-1225.	1.9	1
22	Plant disease identification using explainable 3D deep learning on hyperspectral images. Plant Methods, 2019, 15, 98.	4.3	202
23	Interpretable deep learning for guided microstructure-property explorations in photovoltaics. Npj Computational Materials, 2019, 5, .	8.7	44
24	Traffic Dynamics Exploration and Incident Detection Using Spatiotemporal Graphical Modeling. Journal of Big Data Analytics in Transportation, 2019, 1, 37-55.	3.0	11
25	An Examination of Indian State in the Post-planning Period. Dynamics of Asian Development, 2019, , 57-79.	0.1	1
26	Occupancy sensing in buildings: A review of data analytics approaches. Energy and Buildings, 2019, 188-189, 278-285.	6.7	64
27	Learning State Switching for Multi-sensor Integration. , 2019, , .		1
28	For publication in 2019 ACC A flexible framework for building occupancy detection using spatiotemporal pattern networks. , 2019, , .		4
29	Machine Learning Approach for Prescriptive Plant Breeding. Scientific Reports, 2019, 9, 17132.	3.3	55
30	A Deep Learning Framework for Design and Analysis of Surgical Bioprosthetic Heart Valves. Scientific Reports, 2019, 9, 18560.	3.3	37
31	A Case Study of Deep Reinforcement Learning for Engineering Design: Application to Microfluidic Devices for Flow Sculpting. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	41
32	A Weakly Supervised Deep Learning Framework for Sorghum Head Detection and Counting. Plant Phenomics, 2019, 2019, 1525874.	5.9	114
33	Development of Optimized Phenomic Predictors for Efficient Plant Breeding Decisions Using Phenomic-Assisted Selection in Soybean. Plant Phenomics, 2019, 2019, 5809404.	5.9	50
34	An explainable deep machine vision framework for plant stress phenotyping. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4613-4618.	7.1	353
35	A deep learning framework for causal shape transformation. Neural Networks, 2018, 98, 305-317.	5.9	16
36	On Consensus-Disagreement Tradeoff in Distributed Optimization. , 2018, , .		4

#	ARTICLE	IF	CITATIONS
37	Exploring Granger causality in dynamical systems modeling and performance monitoring. , 2018, , .		2
38	Building Energy Disaggregation using Spatiotemporal Pattern Network. , 2018, , .		1
39	Hierarchical Optimization for Building Energy Systems. , 2018, , .		0
40	Hyperspectral band selection using genetic algorithm and support vector machines for early identification of charcoal rot disease in soybean stems. Plant Methods, 2018, 14, 86.	4.3	105
41	A Novel Multirobot System for Plant Phenotyping. Robotics, 2018, 7, 61.	3.5	24
42	Linked read technology for assembling large complex and polyploid genomes. BMC Genomics, 2018, 19, 651.	2.8	31
43	Deep Learning for Plant Stress Phenotyping: Trends and Future Perspectives. Trends in Plant Science, 2018, 23, 883-898.	8.8	391
44	Traffic Congestion Detection from Camera Images using Deep Convolution Neural Networks. Transportation Research Record, 2018, 2672, 222-231.	1.9	78
45	A deep learning framework to discern and count microscopic nematode eggs. Scientific Reports, 2018, 8, 9145.	3.3	59
46	Computer vision and machine learning for robust phenotyping in genome-wide studies. Scientific Reports, 2017, 7, 44048.	3.3	68
47	Convergence and noise effect analysis for generalized gossip-based distributed optimization. , 2017, , .		1
48	An unsupervised anomaly detection approach using energy-based spatiotemporal graphical modeling. Cyber-Physical Systems, 2017, 3, 66-102.	2.0	25
49	A real-time phenotyping framework using machine learning for plant stress severity rating in soybean. Plant Methods, 2017, 13, 23.	4.3	124
50	Data-driven root-cause analysis for distributed system anomalies. , 2017, , .		8
51	Scalable supervisory control of building energy systems using generalized gossip. , 2016, , .		4
52	Topology control in mobile sensor networks using information space feedback. , 2016, , .		0
53	Data driven exploration of traffic network system dynamics using high resolution probe data. , 2016, , .		6
54	Machine Learning for High-Throughput Stress Phenotyping in Plants. Trends in Plant Science, 2016, 21, 110-124.	8.8	670

#	Article	IF	Citations
55	Path planning in GPS-denied environments via collective intelligence of distributed sensor networks. International Journal of Control, 2016, 89, 984-999.	1.9	9
56	Deploying Fourier Coefficients to Unravel Soybean Canopy Diversity. Frontiers in Plant Science, 2016, 7, 2066.	3.6	15
57	A Symbolic Dynamic Filtering approach to unsupervised hierarchical feature extraction from time-series data. , 2015, , .		4
58	On distributed optimization using generalized gossip. , 2015, , .		7
59	Fault-tolerant optimal control of a building HVAC system. Science and Technology for the Built Environment, 2015, 21, 734-751.	1.7	33
60	Spatiotemporal information fusion for fault detection in shipboard auxiliary systems. , 2013, , .		2
61	Distributed decision propagation in mobile agent networks. , 2012, , .		0
62	Statistical Mechanics-Inspired Modeling of Heterogeneous Packet Transmission in Communication Networks. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 1083-1094.	5.0	7
63	Optimization of symbolic feature extraction for pattern classification. Signal Processing, 2012, 92, 625-635.	3.7	18
64	Semantic sensor fusion for fault diagnosis in aircraft gas turbine engines. , 2011, , .		4
65	Optimal partitioning of ultrasonic data for fatigue damage detection?. , 2011, , .		0
66	Distributed decision propagation in mobile agent networks. , 2010, , .		2
67	Symbolic analysis of time series signals using generalized Hilbert transform. , 2009, , .		1
68	Understanding phase transition in communication networks to enable robust and resilient control. , 2009, , .		5