Sumit Darak

List of Publications by Year
in descending order

76 papers	486 citations	1039880 9 h-index	996849 15 g-index
77 all docs	77 docs citations	77 times ranked	296 citing authors

#	Article	IF	Citations
1	Multiplayer Bandits: A Trekking Approach. IEEE Transactions on Automatic Control, 2022, 67, 2237-2252.	3.6	5
2	Multiplay Multiarmed Bandit Algorithm Based Sensing of Noncontiguous Wideband Spectrum for AIoT Networks. IEEE Transactions on Industrial Informatics, 2022, 18, 3337-3348.	7.2	4
3	Reconfigurable Architecture for Spatial Sensing in Wideband Radio Front-End. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 1054-1058.	2.2	1
4	Intelligent and Reconfigurable Architecture for KL Divergence-Based Multi-Armed Bandit Algorithms. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 1008-1012.	2.2	6
5	Toward Intelligent Reconfigurable Wireless Physical Layer (PHY). IEEE Open Journal of Circuits and Systems, 2021, 2, 226-240.	1.4	3
6	Design and Implementation of Low Complexity Reconfigurable Filtered-OFDM-Based LDACS. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 2399-2403.	2.2	9
7	Novel deep learning framework for wideband spectrum characterization at sub-Nyquist rate. Wireless Networks, 2021, 27, 4727-4746.	2.0	7
8	Reconfigurable and Intelligent Ultrawideband Angular Sensing: Prototype Design and Validation. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-15.	2.4	6
9	Resource Constrained Neural Networks for Direction-of-Arrival Estimation in Micro-controllers. , 2021, , .		1
10	Intelligent Reconfigurable Wideband Spectrum Characterization for 5G Applications. , 2021, , .		0
11	Distributed Learning and Coordination in Cognitive Infrastructureless Networks of Unknown Size. IEEE Systems Journal, 2020, 14, 2085-2096.	2.9	3
12	Learning to Coordinate in a Decentralized Cognitive Radio Network in Presence of Jammers. IEEE Transactions on Mobile Computing, 2020, 19, 2640-2655.	3.9	2
13	Spectral Coexistence of LDACS and DME: Analysis via Hardware Software Co-Design in Presence of Real Channels and RF Impairments. IEEE Transactions on Vehicular Technology, 2020, 69, 9837-9848.	3.9	10
14	Novel Framework for Enabling Hardware Acceleration in GNU Radio. , 2020, , .		1
15	Multi-player Multi-armed Bandits for Dynamic Cognitive Ad-Hoc Networks. , 2020, , .		0
16	Reconfigurable and Computationally Efficient Architecture for Multi-Armed Bandit Algorithms. , 2020, , .		2
17	Learning Based Reconfigurable Sub-nyquist Sampling Framework for Ultra-wideband Angular Sensing. , 2020, , .		2
18	Variable cutoff frequency FIR filters: a survey. SN Applied Sciences, 2020, 2, 1.	1.5	13

#	Article	IF	Citations
19	Low-Complexity Reconfigurable and Intelligent Ultrawideband Angular Sensing. IEEE Systems Journal, 2020, 14, 4931-4942.	2.9	6
20	Review: Wideband Spectrum Sensing for Next Generation Wireless Networks. , 2019, , .		0
21	Multi-Player Multi-Armed Bandits for Stable Allocation in Heterogeneous Ad-Hoc Networks. IEEE Journal on Selected Areas in Communications, 2019, 37, 2350-2363.	9.7	29
22	New Spectrum Efficient Reconfigurable Filtered-OFDM Based *L*-Band Digital Aeronautical Communication System. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 1108-1122.	2.6	15
23	Distributed Learning in Ad-Hoc Networks with Unknown Number of Players. Performance Evaluation Review, 2019, 46, 171-174.	0.4	1
24	Distributed Learning and Optimal Assignment in Multiplayer Heterogeneous Networks. , 2019, , .		21
25	LSTM Guided Modulation Classification and Experimental Validation for Sub-Nyquist Rate Wideband Spectrum Sensing. , 2019, , .		10
26	Countermeasures Against Jamming Attack in Sensor Networks with Timing and Power Constraints. , 2019, , .		3
27	Performance Analysis of Reconfigurable Filtered OFDM for LDACS. , 2019, , .		3
28	Throughput Optimized Non-Contiguous Wideband Spectrum Sensing via Online Learning and Sub-Nyquist Sampling. IEEE Wireless Communications Letters, 2019, 8, 805-808.	3.2	8
29	USRP Testbed and Performance Analysis of New Reconfigurable LDACS In Presence of DME Interference. , 2019, , .		1
30	Distributed Algorithm for Learning to Coordinate in Infrastructure-Less Network. IEEE Communications Letters, 2019, 23, 362-365.	2.5	2
31	Transfer Reinforcement Learning based Framework for Energy Savings in Cellular Base Station Network. , 2019, , .		6
32	Spectrum Blind Recovery and Application in Non-uniform Sampling Based Automatic Modulation Classifier. Circuits, Systems, and Signal Processing, 2018, 37, 3457-3486.	1.2	3
33	Two-stage decision making policy for opportunistic spectrum access and validation on USRP testbed. Wireless Networks, 2018, 24, 1509-1523.	2.0	2
34	Distributed decision making policy for frequency band selection boosting RF energy harvesting rate in wireless sensor nodes. Wireless Networks, 2018, 24, 3189-3203.	2.0	3
35	Trekking based distributed algorithm for opportunistic spectrum access in infrastructure-less network. , 2018, , .		5
36	Spectral Parameter Approximation Based Tunable Digital Filters on Zynq SoC. , 2018, , .		3

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37	Improved hierarchical decision making policy for reliable and green electricity grid. , 2018, , .		1
38	Distributed learning algorithms for coordination in a cognitive network in presence of jammers. , 2018, , .		3
39	Parallel aggregated MAB framework for source selection in multi-antenna RF harvesting circuit. , 2018, , .		1
40	Distributed algorithm for dynamic spectrum access in infrastructure-less cognitive radio network. , 2018, , .		6
41	Channel Selection for Secondary Users in Decentralized Network of Unknown Size. IEEE Communications Letters, 2017, 21, 2186-2189.	2.5	7
42	Energy saving in heterogeneous cellular network via transfer reinforcement learning based policy. , 2017, , .		14
43	Performance evaluation of cumulant feature based automatic modulation classifier on USRP testbec. , 2017, , .		3
44	Decision making policy for RF energy harvesting enabled cognitive radios in decentralized wireless networks. , 2017, 60, 33-45.		7
45	Spectral coexistence of candidate waveforms and DME in air-to-ground communications: Analysis via hardware software co-design on Zynq SoC. , 2017, , .		10
46	Bayesian multi-armed bandit framework for multi-band auction based dynamic spectrum access in multi-user decentralized networks. , 2017, , .		1
47	Sub-Nyquist sampling and machine learning based online automatic modulation classifier for multi-carrier waveform. , 2017, , .		2
48	Reconfigurable filtered OFDM waveform for next generation air-to-ground communications. , 2017, , .		8
49	Automatic modulation classification by exploiting cyclostationary features in wavelet domain. , 2017, , .		4
50	An Efficient Timing and Clock Tree Aware Placement Flow with Multibit Flip-Flops for Power Reduction. Communications in Computer and Information Science, 2017, , 581-593.	0.4	0
51	Two-Stage Decision Making Policy Using Bayesian Multi-armed Bandit Algorithm for Opportunistic Spectrum Access. , 2016, , .		0
52	A transfer learning framework for energy efficient Wi-Fi networks and performance analysis using real data. , 2016, , .		4
53	Blind and adaptive reconstruction approach for non-uniformly sampled wideband signal. , 2016, , .		4
54	Blind symbol rate estimation by exploiting cyclostationary features in wavelet domain. , 2016, , .		4

#	ARTICLE	IF	CITATIONS
55	Smart decision making policy for faster harvesting from ambient RF sources in wireless sensor nodes. , 2016, , .		5
56	FPGA implementation of high speed reconfigurable filter bank for multi-standard wireless communication receivers. , 2016, , .		2
57	Quantification of figures of merit of 7T and 8T SRAM cells in subthreshold region and their comparison with the conventional 6T SRAM cell. , 2016, , .		1
58	Testbed and experimental analysis of automatic modulation classifier for non-uniformly sampled signal. , 2016, , .		1
59	Is Bayesian Multi-armed Bandit Algorithm Superior?: Proof-of-Concept for Opportunistic Spectrum Access in Decentralized Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2016, , 104-115.	0.2	1
60	Dynamic spectrum access with tunable bandwidth for multi-standard cognitive radio receivers. , 2015, , .		4
61	An efficient policy for D2D communications and energy harvesting in cognitive radios: Go Bayesian!. , 2015, , .		21
62	Low complexity and efficient dynamic spectrum learning and tunable bandwidth access for heterogeneous decentralized cognitive radio networks. , 2015, 37, 13-23.		19
63	Reconfigurable Filter Bank With Complete Control Over Subband Bandwidths for Multistandard Wireless Communication Receivers. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 1772-1782.	2.1	16
64	Reconfiguration management on FPGA platform for cognitive radio. , 2014, , .		0
65	Linear phase filter bank design with unabridged control over bandwidth and center frequency of subbands. , 2014, , .		0
66	Design of low complexity variable digital filter with large cutoff frequency range based on second order frequency transformation and interpolation. , 2014, , .		3
67	Efficient decentralized dynamic spectrum learning and access policy for multi-standard multi-user cognitive radio networks. , 2014, , .		2
68	Linear-Phase VDF Design With Unabridged Bandwidth Control Over the Nyquist Band. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 428-432.	2.2	16
69	Low-Complexity Reconfigurable Fast Filter Bank for Multi-Standard Wireless Receivers. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2014, 22, 1202-1206.	2.1	33
70	Efficient spectrum sensing for green cognitive radio using low complexity reconfigurable fast filter bank. , 2013, , .		1
71	Efficient Implementation of Reconfigurable Warped Digital Filters With Variable Low-Pass, High-Pass, Bandpass, and Bandstop Responses. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 1165-1169.	2.1	30
72	Design of variable linear phase FIR filters based on second order frequency transformations and coefficient decimation. , 2012, , .		11

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73	An area and power efficient two-stage parallel spectrum sensing scheme for cognitive radios. , 2012, , .		2
74	A Low Complexity Reconfigurable Non-uniform Filter Bank for Channelization in Multi-standard Wireless Communication Receivers. Journal of Signal Processing Systems, 2012, 68, 95-111.	1.4	20
75	A new variable digital filter design based on fractional delay. , 2011, , .		10
76	A reconfigurable filter bank for uniform and non-uniform channelization in multi-standard wireless communication receivers. , 2010, , .		13