

Kaushik Roy Chowdhury

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

6,590
citations

196777

29
h-index

169272

56
g-index

122
all docs

122
docs citations

122
times ranked

5422
citing authors

#	ARTICLE	IF	CITATIONS
1	Millimeter-Wave Base Stations in the Sky: An Experimental Study of UAV-to-Ground Communications. IEEE Transactions on Mobile Computing, 2022, 21, 644-662.	3.9	22
2	NN-key: A Neural Network-Based Secret Key for Demapping OFDM Symbols. , 2022, , .		0
3	SABRE: Swarm-Based Aerial Beamforming Radios: Experimentation and Emulation. IEEE Transactions on Wireless Communications, 2022, 21, 7460-7475.	6.1	6
4	Deep Learning on Multimodal Sensor Data at the Wireless Edge for Vehicular Network. IEEE Transactions on Vehicular Technology, 2022, 71, 7639-7655.	3.9	16
5	FLASH: Federated Learning for Automated Selection of High-band mmWave Sectors. , 2022, , .		16
6	<i>Flying Among Stars:</i> Jamming-resilient Channel Selection for UAVs through Aerial Constellations<i></i>. IEEE Transactions on Mobile Computing, 2021, , 1-1.	3.9	0
7	ReLy: Machine Learning for Ultra-Reliable, Low-Latency Messaging in Industrial Robots. IEEE Communications Magazine, 2021, 59, 75-81.	4.9	3
8	Classifying UAVs With Proprietary Waveforms via Preamble Feature Extraction and Federated Learning. IEEE Transactions on Vehicular Technology, 2021, 70, 6279-6290.	3.9	22
9	<i>No Radio Left Behind:</i> Radio Fingerprinting Through Deep Learning of Physical-Layer Hardware Impairments. IEEE Transactions on Cognitive Communications and Networking, 2020, 6, 165-178.	4.9	105
10	MAGIC: Magnetic Resonant Coupling for Intra-body Communication. , 2020, , .		6
11	Exposing the Fingerprint: Dissecting the Impact of the Wireless Channel on Radio Fingerprinting. , 2020, , .		104
12	SoftCharge: Software Defined Multi-Device Wireless Charging Over Large Surfaces. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2020, 10, 38-51.	2.7	5
13	Deep Learning for RF Fingerprinting: A Massive Experimental Study. IEEE Internet of Things Magazine, 2020, 3, 50-57.	2.0	123
14	More Is Better: Data Augmentation for Channel-Resilient RF Fingerprinting. IEEE Communications Magazine, 2020, 58, 66-72.	4.9	51
15	RF Fingerprinting Unmanned Aerial Vehicles With Non-Standard Transmitter Waveforms. IEEE Transactions on Vehicular Technology, 2020, 69, 15518-15531.	3.9	44
16	Persistent Crowd Tracking Using Unmanned Aerial Vehicle Swarms: A Novel Framework for Energy and Mobility Management. IEEE Vehicular Technology Magazine, 2020, 15, 96-103.	2.8	16
17	Generalized wireless adversarial deep learning. , 2020, , .		12
18	CSIScan: Learning CSI for Efficient Access Point Discovery in Dense WiFi Networks. , 2020, , .		3

#	ARTICLE	IF	CITATIONS
19	Open-World Class Discovery with Kernel Networks. , 2020, , .		12
20	Learn-Prune-Share for Lifelong Learning. , 2020, , .		10
21	QTCP: Adaptive Congestion Control with Reinforcement Learning. IEEE Transactions on Network Science and Engineering, 2019, 6, 445-458.	4.1	100
22	E-Fi: Evasive Wi-Fi Measures for Surviving LTE within 5 GHz Unlicensed Band. IEEE Transactions on Mobile Computing, 2019, 18, 830-844.	3.9	10
23	Body-Guided Galvanic Coupling Communication for Secure Biometric Data. IEEE Transactions on Wireless Communications, 2019, 18, 4143-4156.	6.1	14
24	DeepRadiolD. , 2019, , .		72
25	ORACLE: Optimized Radio clAssification through Convolutional neural nEtworks. , 2019, , .		147
26	Portable System for Neuro-Optical Diagnostics Using Virtual Reality Display. Military Medicine, 2019, 184, 584-592.	0.4	13
27	MAC ID Spoofing-Resistant Radio Fingerprinting. , 2019, , .		9
28	Impairment Shift Keying: Covert Signaling by Deep Learning of Controlled Radio Imperfections. , 2019, , .		6
29	Spectrum Awareness at the Edge: Modulation Classification using Smartphones. , 2019, , .		14
30	AirBeam: Experimental Demonstration of Distributed Beamforming by a Swarm of UAVs. , 2019, , .		23
31	Finding a "New" Needle in the Haystack: Unseen Radio Detection in Large Populations Using Deep Learning. , 2019, , .		25
32	Janus: A Multi-TCP Framework for Application-Aware Optimization in Mobile Networks. IEEE Transactions on Mobile Computing, 2019, 18, 2103-2116.	3.9	2
33	SDNs in the Sky: Robust End-to-End Connectivity for Aerial Vehicular Networks. IEEE Communications Magazine, 2018, 56, 16-21.	4.9	173
34	Multiband Ambient RF Energy Harvesting Circuit Design for Enabling Batteryless Sensors and IoT. IEEE Internet of Things Journal, 2018, 5, 2700-2714.	5.5	109
35	Hardware-Software Codesign of Wireless Transceivers on Zynq Heterogeneous Systems. IEEE Transactions on Emerging Topics in Computing, 2018, 6, 566-578.	3.2	27
36	Advances in Wireless Communication and Networking for Cooperating Autonomous Systems. Ad Hoc Networks, 2018, 68, iii-v.	3.4	7

#	ARTICLE	IF	CITATIONS
37	CapBand. , 2018, , .		67
38	Talking When No One is Listening: Piggybacking City-scale IoT Control Signals Over LTE. , 2018, , .		1
39	WiFED: WiFi Friendly Energy Delivery with Distributed Beamforming. , 2018, , .		6
40	A Kalman Based Hybrid Precoding for Multi-User Millimeter Wave MIMO Systems. IEEE Access, 2018, 6, 55712-55722.	2.6	39
41	When UAVs Ride A Bus: Towards Energy-efficient City-scale Video Surveillance. , 2018, , .		62
42	Making the Right Connections: Multi-AP Association and Flow Control in 60GHz Band. , 2018, , .		9
43	ECG-Based User Authentication and Identification Method on VANETs. , 2018, , .		14
44	Deep Learning Convolutional Neural Networks for Radio Identification. IEEE Communications Magazine, 2018, 56, 146-152.	4.9	228
45	Joint Coverage, Connectivity, and Charging Strategies for Distributed UAV Networks. IEEE Transactions on Robotics, 2018, 34, 883-900.	7.3	110
46	WI-LO: Wireless indoor localization through multi-source radio fingerprinting. , 2018, , .		7
47	Beyond 5G: THz-Based Medium Access Protocol for Mobile Heterogeneous Networks. , 2018, 56, 110-115.		66
48	Handover Management in Software-Defined Ultra-Dense 5G Networks. IEEE Network, 2017, 31, 49-55.	4.9	87
49	Towards Fast Flow Convergence in Cognitive Radio Cellular Networks. , 2017, , .		2
50	FPGA modeling techniques for detecting and demodulating multiple wireless protocols. , 2017, , .		1
51	High-Level System Design of IEEE 802.11b Standard-Compliant Link Layer for MATLAB-Based SDR. IEEE Access, 2016, 4, 1494-1509.	2.6	3
52	SINR and Reliability based Hidden Terminal Estimation for Next Generation Vehicular Networks. , 2016, , .		3
53	Learning-Based and Data-Driven TCP Design for Memory-Constrained IoT. , 2016, , .		15
54	Accurate physical to Network LTE simulation framework. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
55	On the Scalability of Energy in Wireless RF Powered Internet of Things. IEEE Communications Letters, 2016, 20, 2554-2557.	2.5	8
56	Modeling considerations for the hardware-software co-design of flexible modern wireless transceivers. , 2016, , .		3
57	High-level hardware-software co-design of an 802.11a transceiver system using Zynq SoC. , 2016, , .		7
58	Janus: Network- and application-aware multi-TCP optimization engine. , 2016, , .		0
59	Low-Cost Wake-Up Receiver for RF Energy Harvesting Wireless Sensor Networks. IEEE Sensors Journal, 2016, 16, 6270-6278.	2.4	26
60	Performance Analysis of CSMA/CA based Medium Access in Full Duplex Wireless Communications. IEEE Transactions on Mobile Computing, 2016, 15, 1457-1470.	3.9	50
61	RF energy harvester-based wake-up receiver. , 2015, , .		6
62	Charging Time Characterization for Wireless RF Energy Transfer. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 362-366.	2.2	40
63	Smart RF energy harvesting communications: challenges and opportunities. , 2015, 53, 70-78.		171
64	REACH ² -Mote. ACM Transactions on Sensor Networks, 2015, 11, 1-33.	2.3	17
65	Implementing a MATLAB-Based Self-configurable Software Defined Radio Transceiver. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 164-175.	0.2	4
66	Implementation of multi-path energy routing. , 2014, , .		13
67	Self-organizing aerial mesh networks for emergency communication. , 2014, , .		42
68	Simulating dynamic spectrum access using ns-3 for wireless networks in smart environments. , 2014, , .		19
69	Enabling emergency communication through a cognitive radio vehicular network. , 2014, 52, 68-75.		31
70	Predictive decision-making for vehicular cognitive radio networks through Hidden Markov models. , 2014, , .		4
71	Querying spectrum databases and improved sensing for vehicular cognitive radio networks. , 2014, , .		2
72	Reducing Processing Latency with a Heterogeneous FPGA-Processor Framework. , 2014, , .		2

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73	RF-MAC: A Medium Access Control Protocol for Re-Chargeable Sensor Networks Powered by Wireless Energy Harvesting. IEEE Transactions on Wireless Communications, 2014, 13, 3926-3937.	6.1	147
74	A particle swarm optimization using local stochastic search and enhancing diversity for continuous optimization. Neurocomputing, 2014, 137, 261-267.	3.5	43
75	Spectrum Allocation and QoS Provisioning Framework for Cognitive Radio With Heterogeneous Service Classes. IEEE Transactions on Wireless Communications, 2014, 13, 3938-3950.	6.1	21
76	A Multi-Cast Communication Scheme Using Weak Electrical Current for Intra-Body Networks. , 2014, , .		1
77	Multi-path 2-Port Channel Characterization for Galvanic Coupled Intra-body Communication. , 2014, , .		1
78	XCHARM: A routing protocol for multi-channel wireless mesh networks. Computer Communications, 2013, 36, 1485-1497.	3.1	6
79	The Future of Human-in-the-Loop Cyber-Physical Systems. Computer, 2013, 46, 36-45.	1.2	265
80	TFRC-CR: An equation-based transport protocol for cognitive radio networks. Ad Hoc Networks, 2013, 11, 1836-1847.	3.4	37
81	Licensed user activity estimation and track in mobile cognitive radio ad hoc networks. Computers and Electrical Engineering, 2013, 39, 1705-1716.	3.0	5
82	Device characterization and cross-layer protocol design for RF energy harvesting sensors. Pervasive and Mobile Computing, 2013, 9, 120-131.	2.1	7
83	Range extension of passive wake-up radio systems through energy harvesting. , 2013, , .		33
84	Resilient and multi-dimensional cooperative spectrum sensing on cognitive radio networks. , 2013, , .		0
85	Experimental demonstration of multi-hop RF energy transfer. , 2013, , .		30
86	A Cooperative Evolution for QoS-driven IoT Service Composition. Automatika, 2013, 54, 438-447.	1.2	15
87	Enhancing wireless medical telemetry through dynamic spectrum access. , 2012, , .		5
88	Design of Spectrum Database Assisted Cognitive Radio Vehicular Networks. , 2012, , .		17
89	Design Optimization and Implementation for RF Energy Harvesting Circuits. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 24-33.	2.7	361
90	Welcome message from the CORAL 2012 chairs. , 2012, , .		0

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91	CRUSH: Cognitive Radio Universal Software Hardware. , 2012, , .		10
92	Transforming healthcare and medical telemetry through cognitive radio networks. IEEE Wireless Communications, 2012, 19, 67-73.	6.6	46
93	Cognitive radio universal software hardware. , 2012, , .		5
94	Cognitive Radio Universal Software Hardware. , 2012, , .		3
95	Smart Radios for Smart Vehicles: Cognitive Vehicular Networks. IEEE Vehicular Technology Magazine, 2012, 7, 26-33.	2.8	103
96	Adaptive Sensing Scheduling and Spectrum Selection in Cognitive Wireless Mesh Networks. , 2011, , .		10
97	Cooperation and communication in Cognitive radio networks based on TV spectrum experiments. , 2011, , .		16
98	A Spectrum Sharing Algorithm Based on Spectrum Heterogeneity for Centralized Cognitive Radio Networks. , 2011, , .		4
99	Learning with the Bandit: A Cooperative Spectrum Selection Scheme for Cognitive Radio Networks. , 2011, , .		10
100	CRP: A Routing Protocol for Cognitive Radio Ad Hoc Networks. IEEE Journal on Selected Areas in Communications, 2011, 29, 794-804.	9.7	192
101	Cooperative spectrum management in cognitive Vehicular Ad Hoc Networks. , 2011, , .		50
102	End-to-end protocols for Cognitive Radio Ad Hoc Networks: An evaluation study. Performance Evaluation, 2011, 68, 859-875.	0.9	79
103	Markov modeling of energy harvesting Body Sensor Networks. , 2011, , .		37
104	Common control channel design for cognitive radio wireless ad hoc networks using adaptive frequency hopping. Ad Hoc Networks, 2010, 8, 430-438.	3.4	159
105	Analyzing the potential of cooperative Cognitive Radio technology on inter-vehicle communication. , 2010, , .		55
106	Platforms and testbeds for experimental evaluation of cognitive ad hoc networks. , 2010, 48, 96-104.		52
107	To Sense or to Transmit: A Learning-Based Spectrum Management Scheme for Cognitive Radiomesh Networks. , 2010, , .		12
108	Learning-Based Spectrum Selection in Cognitive Radio Ad Hoc Networks. Lecture Notes in Computer Science, 2010, , 133-145.	1.0	19

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109	A fading and interference aware routing protocol for multi-channel multi-radio wireless mesh networks. , 2009, , .		5
110	A survey on MAC protocols for cognitive radio networks. Ad Hoc Networks, 2009, 7, 1315-1329.	3.4	444
111	Search: A routing protocol for mobile cognitive radio ad-hoc networks. Computer Communications, 2009, 32, 1983-1997.	3.1	172
112	Channel allocation and medium access control for wireless sensor networks. Ad Hoc Networks, 2009, 7, 307-321.	3.4	52
113	CRAHNs: Cognitive radio ad hoc networks. Ad Hoc Networks, 2009, 7, 810-836.	3.4	1,187
114	Spectrum management in cognitive radio ad hoc networks. IEEE Network, 2009, 23, 6-12.	4.9	128
115	Modeling and performance evaluation of transmission control protocol over cognitive radio ad hoc networks. , 2009, , .		35
116	Cognitive Wireless Mesh Networks with Dynamic Spectrum Access. IEEE Journal on Selected Areas in Communications, 2008, 26, 168-181.	9.7	191
117	Spectrum Sensing Algorithms for Cognitive Radio Networks. , 2008, , 3-35.		0
118	Attribute Allocation and Retrieval Scheme for Large-Scale Sensor Networks. International Journal of Wireless Information Networks, 2006, 13, 303-315.	1.8	12
119	Attribute allocation in large scale sensor networks. , 2005, , .		3