Ali E Pusane

List of Publications by Year
in descending order

143 papers	1,498 citations	430874 18 h-index	414414 32 g-index
143 all docs	143 docs citations	143 times ranked	898 citing authors

#	Article	IF	Citations
1	ISI Mitigation Techniques in Molecular Communication. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2015, 1, 202-216.	2.1	123
2	Implementation aspects of LDPC convolutional codes. IEEE Transactions on Communications, 2008, 56, 1060-1069.	7.8	110
3	Deriving Good LDPC Convolutional Codes from LDPC Block Codes. IEEE Transactions on Information Theory, 2011, 57, 835-857.	2.4	107
4	A novel design method for discrete time chaos based true random number generators. The Integration VLSI Journal, 2014, 47, 38-47.	2.1	82
5	A Novel Pre-Equalization Method for Molecular Communication via Diffusion in Nanonetworks. IEEE Communications Letters, 2015, 19, 1311-1314.	4.1	53
6	Minimum Distance and Trapping Set Analysis of Protograph-Based LDPC Convolutional Codes. IEEE Transactions on Information Theory, 2013, 59, 254-281.	2.4	49
7	Index Modulation for Molecular Communication via Diffusion Systems. IEEE Transactions on Communications, 2019, 67, 3337-3350.	7.8	49
8	Randomly Punctured LDPC Codes. IEEE Journal on Selected Areas in Communications, 2016, 34, 408-421.	14.0	40
9	Arrival Modeling and Error Analysis for Molecular Communication via Diffusion with Drift. , 2015, , .		32
10	Optimal Reception Delay in Diffusion-Based Molecular Communication. IEEE Communications Letters, 2018, 22, 57-60.	4.1	32
11	A new dual entropy core true random number generator. Analog Integrated Circuits and Signal Processing, 2014, 81, 61-70.	1.4	29
12	Position-based modulation in molecular communications. Nano Communication Networks, 2018, 16, 60-68.	2.9	25
13	Energy efficient ISI mitigation for communication via diffusion. , 2014, , .		24
14	An Integrated Dual Entropy Core True Random Number Generator. IEEE Transactions on Circuits and Systems II: Express Briefs, 2017, 64, 329-333.	3.0	24
15	Transmitter Localization in Vessel-Like Diffusive Channels Using Ring-Shaped Molecular Receivers. IEEE Communications Letters, 2018, 22, 2511-2514.	4.1	24
16	Asymptotically good LDPC convolutional codes based on protographs. , 2008, , .		21
17	A Physical Layer Security Framework for Cognitive Cyber-Physical Systems. IEEE Wireless Communications, 2020, 27, 32-39.	9.0	21
18	Non-Uniform Window Decoding Schedules for Spatially Coupled LDPC Codes. IEEE Transactions on Communications, 2017, 65, 501-510.	7.8	20

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19	Pseudocodeword Performance Analysis for LDPC Convolutional Codes. IEEE Transactions on Information Theory, 2009, 55, 2577-2598.	2.4	19
20	ISI-Mitigating Channel Codes for Molecular Communication Via Diffusion. IEEE Access, 2020, 8, 24588-24599.	4.2	19
21	Molecular Signal Modeling of a Partially Counting Absorbing Spherical Receiver. IEEE Transactions on Communications, 2018, 66, 6237-6246.	7.8	18
22	VLCnet: Deep Learning Based End-to-End Visible Light Communication System. Journal of Lightwave Technology, 2020, 38, 5937-5948.	4.6	17
23	Construction of Irregular LDPC Convolutional Codes with Fast Encoding. , 2006, , .		16
24	Impulse Response of the Molecular Diffusion Channel With a Spherical Absorbing Receiver and a Spherical Reflective Boundary. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2018, 4, 118-122.	2.1	15
25	ISI-Aware Channel Code Design for Molecular Communication via Diffusion. IEEE Transactions on Nanobioscience, 2019, 18, 205-213.	3.3	15
26	Pulse Position-Based Spatial Modulation for Molecular Communications. IEEE Communications Letters, 2019, 23, 596-599.	4.1	15
27	On Deriving Good LDPC Convolutional Codes from QC LDPC Block Codes. , 2007, , .		14
28	A Comparison of ARA- and Protograph-Based LDPC Block and Convolutional Codes. , 2007, , .		14
29	A low-cost serial decoder architecture for low-density parity-check convolutional codes. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1967-1976.	5.4	14
30	A General Analytical Approximation to Impulse Response of 3-D Microfluidic Channels in Molecular Communication. IEEE Transactions on Nanobioscience, 2019, 18, 396-403.	3.3	14
31	A two-step layout-in-the-loop design automation tool. , 2015, , .		13
32	Machine Learning-Based Silent Entity Localization Using Molecular Diffusion. IEEE Communications Letters, 2020, 24, 807-810.	4.1	13
33	Adaptive sized Quasi-Monte Carlo based yield aware analog circuit optimization tool. , 2014, , .		12
34	Enhanced challenge–response set and secure usage scenarios for ordering–based ring oscillator–physical unclonable functions. IET Circuits, Devices and Systems, 2015, 9, 87-95.	1.4	12
35	A Hybrid Quasi Monte Carlo Method for Yield Aware Analog Circuit Sizing Tool. , 2015, , .		12
36	Reputation Based Attacker Identification Policy for Multi-Access Edge Computing in Internet of Things. IEEE Transactions on Vehicular Technology, 2020, 69, 15346-15356.	6.3	12

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37	A deterministic aging simulator and an analog circuit sizing tool robust to aging phenomena. , 2015, , .		11
38	A New LED Response Model and its Application to Pre-Equalization in VLC Systems. IEEE Photonics Technology Letters, 2021, 33, 955-958.	2.5	11
39	Exact free distance and trapping set growth rates for LDPC convolutional codes. , 2011, , .		10
40	Reduced complexity window decoding schedules for coupled LDPC codes. , 2012, , .		10
41	An analog circuit synthesis tool based on efficient and reliable yield estimation. Microelectronics Journal, 2016, 54, 14-22.	2.0	10
42	Multiple transmitter localization via single receiver in 3-D molecular communication via diffusion. , 2022, 124, 103185.		10
43	Pseudo-Codewords in LDPC Convolutional Codes. , 2006, , .		9
44	Trapping set analysis of protograph-based LDPC convolutional codes. , 2009, , .		9
45	Non-uniform windowed decoding schedules for spatially coupled codes. , 2013, , .		9
46	Randomly punctured spatially coupled LDPC codes. , 2014, , .		9
47	Investigating flicker noise effect on randomness of CMOS ring oscillator based true random number generators. , 2014, , .		9
48	A novel yield aware multi-objective analog circuit optimization tool. , 2015, , .		9
49	Reception modeling of sphere-to-sphere molecular communication via diffusion. Nano Communication Networks, 2018, 16, 69-80.	2.9	9
50	Molecular Index Modulation With Space-Time Equalization. IEEE Wireless Communications Letters, 2020, 9, 702-705.	5.0	9
51	The use of FK506 and skin allografting for the treatment of severe burns in an animal model. Journal of Plastic, Reconstructive and Aesthetic Surgery, 1993, 46, 410-415.	1.1	8
52	On the error-correcting capability of LDPC codes. Problems of Information Transmission, 2008, 44, 214-225.	0.5	8
53	Free distance bounds for protograph-based regular LDPC convolutional codes. , 2008, , .		8
54	Dynamic Programming based grouping method for RO-PUFs. , 2013, , .		8

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55	Practical polar code construction using generalised generator matrices. IET Communications, 2014, 8, 419-426.	2.2	8
56	Molecule-as-a-frame: A frame based communication approach for nanonetworks. Nano Communication Networks, 2018, 16, 45-59.	2.9	8
57	A novel dual entropy core true random number generator. , 2013, , .		7
58	Novel network coding approaches for diffusion€based molecular nanonetworks. Transactions on Emerging Telecommunications Technologies, 2017, 28, e3105.	3.9	7
59	Two-way communication systems in molecular communication. , 2017, , .		7
60	MIMO Operations in Molecular Communications: Theory, Prototypes, and Open Challenges. IEEE Communications Magazine, 2021, 59, 98-104.	6.1	7
61	A lifetime-aware analog circuit sizing tool. The Integration VLSI Journal, 2016, 55, 349-356.	2.1	6
62	Effects of aging and compensation mechanisms in ordering based RO-PUFs. The Integration VLSI Journal, 2016, 52, 71-76.	2.1	6
63	An ILI Mitigating Modulation Scheme for Molecular MIMO Communications. , 2019, , .		6
64	On the Construction of Regular QC-LDPC Codes With Low Error Floor. IEEE Communications Letters, 2020, 24, 25-28.	4.1	6
65	A Multiscale Communications System Based on Engineered Bacteria. IEEE Communications Magazine, 2021, 59, 62-67.	6.1	6
66	An integer programming-based search technique for error-prone structures of LDPC codes. AEU - International Journal of Electronics and Communications, 2014, 68, 1097-1105.	2.9	5
67	An efficient grouping method and error probability analysis for RO-PUFs. Computers and Security, 2015, 49, 123-131.	6.0	5
68	On the block error rate performance of spatially coupled LDPC codes for streaming applications. , 2016, , .		5
69	Deep Learning Based Automatic Modulation Classification in the Case of Carrier Phase Shift. , 2020, , .		5
70	On the asymptotic performance of spatially-coupled codes with minimal coupling. , 2012, , .		4
71	Analysis of Ring Oscillator structures to develop a design methodology for RO-PUF circuits. , 2013, , .		4
72	A novel modulation technique in diffusion based molecular communication and its performance analysis. , 2014, , .		4

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73	Approximating decoding thresholds of punctured LDPC code ensembles on the AWGN channel. , 2015, , .		4
74	2-D channel transfer function for Molecular Communication with an absorbing receiver. , 2017, , .		4
75	Simulation Study and Analysis of Diffusive Molecular Communications With an Apertured Plane. IEEE Transactions on Nanobioscience, 2020, 19, 468-476.	3.3	4
76	Asymmetrical Relaying in Molecular Communications. IEEE Transactions on Nanobioscience, 2022, 21, 570-574.	3.3	4
77	On the use of modern coding techniques in QR applications. , 2013, , .		3
78	Random number generation using field programmable analog array implementation of logistic map. , 2013, , .		3
79	Design of efficient CMOS ring oscillator-based random number generator. International Journal of Electronics, 2017, 104, 1465-1482.	1.4	3
80	A novel concentration-type based modulation in molecular communication. , 2017, , .		3
81	A Rare Event Based Yield Estimation Methodology for Analog Circuits. , 2018, , .		3
82	Error Probability Calculation with Reduced Complexity for Molecular Communications. , 2018, , .		3
83	Physical Layer Spoofing Against Eavesdropping Attacks. , 2019, , .		3
84	Optimizationâ€"based decoding algorithms for LDPC convolutional codes in communication systems. IISE Transactions, 2019, 51, 1061-1074.	2.4	3
85	Analytical derivation of the impulse response for the bounded 2-D diffusion channel. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1589-1600.	2.1	3
86	Novel decoding methods of constant weight coding for molecular communications. Nano Communication Networks, 2019, 19, 157-167.	2.9	3
87	Consensus Analysis of Wireless Multi-Agent Systems Over Fading Channels. IEEE Wireless Communications Letters, 2021, 10, 1528-1531.	5.0	3
88	Preliminary Studies on Flow Assisted Propagation of Fluorescent Microbeads in Microfluidic Channels for Molecular Communication Systems. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 294-302.	0.3	3
89	Optimal relaying in molecular communications. Nano Communication Networks, 2022, 32-33, 100404.	2.9	3
90	Asymptotically regular spatially coupled codes with low decoding delay. , 2012, , .		2

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91	Spatially‐coupled communication system for the correlated erasure channel. IET Communications, 2013, 7, 755-765.	2.2	2
92	Adaptive linear programming for decoding LDPC codes. , 2014, , .		2
93	Semi-empirical aging model development via accelerated aging test. , 2016, , .		2
94	Efficient signature selection tool for sense & react systems. , 2016, , .		2
95	An efficient equalization technique for multi-level cell flash memory storage systems. , 2017, , .		2
96	A Network Coding Approach for Multi-Hop Nanonetworks in Molecular Communication. , 2018, , .		2
97	On Chip Reconfigurable CMOS Analog Circuit Design and Automation Against Aging Phenomena. ACM Transactions on Design Automation of Electronic Systems, 2019, 24, 1-22.	2.6	2
98	Spatial Receptor Allocation for a Multiple Access Hub in Nanonetworks. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2019, 5, 63-67.	2.1	2
99	Analytical Investigation of Long-Time Diffusion Dynamics in a Synaptic Channel With Glial Cells. IEEE Communications Letters, 2021, 25, 3444-3448.	4.1	2
100	Rapid prototyping of noncontact microwave microfluidic devices for sensing applications. Journal of Micromechanics and Microengineering, 2021, 31, 097001.	2.6	2
101	A 130 nm CMOS Receiver for Visible Light Communication. Journal of Lightwave Technology, 2022, 40, 3681-3687.	4.6	2
102	Asymptotic trapping set analysis of regular protograph-based LDPC convolutional code ensembles. , 2009, , .		1
103	Field programmable analog array implementation of logistic map. , 2013, , .		1
104	Robust RO-PUFs with enhanced challenge-response set. , 2014, , .		1
105	Asymptotic and finite-length performance of irregular spatially-coupled codes. , 2014, , .		1
106	On the reliability and efficiency of novel programming architectures for next-generation flash memories. , 2015, , .		1
107	Network Coding applications in molecular communication. , 2015, , .		1
108	A heuristic method for adaptive linear programming decoding. , 2016, , .		1

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109	On the effects of mobile transmitter and receiver on the performance of molecular communications system. , 2017, , .		1
110	Security Analysis of Forward Error Correction Codes in Relay Aided Networks. , 2018, , .		1
111	Distance and Power based Experimental Verification of Channel Model in Visible Light Communication. , 2019, , .		1
112	Hybrid MEMS-Based Molecular Communication System. , 2019, , .		1
113	On the distribution of the threshold voltage in multi-level cell flash memories. Physical Communication, 2019, 36, 100747.	2.1	1
114	A Low-Complexity Solution to Angular Misalignments in Molecular Index Modulation. , 2019, , .		1
115	A branchâ€andâ€cut algorithm for a bipartite graph construction problem in digital communication systems. Networks, 2020, 75, 137-157.	2.7	1
116	Experimental Validation of a Novel RLL Code for Visible Light Communication. , 2020, , .		1
117	Surgical Management of Breast Cancer in Turkey: a 30-Year Single-Center Retrospective Study of 2531 Patients. Indian Journal of Surgery, 2021, 83, 28-37.	0.3	1
118	Characterization of LEDs for visible-light communications. Optical Engineering, 2021, 60, .	1.0	1
119	Efficient lowâ€complexity twoâ€dimensional equalisation technique for multiâ€level cell flash memory storage systems. IET Communications, 2018, 12, 1671-1677.	2.2	1
120	Sequence Estimation with Transmit Diversity for Wireless Communications. AEU - International Journal of Electronics and Communications, 2003, 57, 309-316.	2.9	0
121	Finite-length polarization measures for polar coded systems. , 2012, , .		0
122	A spatially-coupled communication system for the correlated erasure channel. , 2012, , .		0
123	Sudoku puzzle as an LDPC code. , 2013, , .		0
124	Performance analysis of spatially coupled codes over the correlated erasure channel. , 2013, , .		0
125	Spatially-coupled coding based communication over the correlated Nakagami fading channel. , 2014, , .		0
126	Analysis of advanced programming architectures for next-generation Flash memories. , 2015, , .		0

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127	Generalized Gaussian distribution-based LDPC receiver for power-line communications. , 2015, , .		0
128	Applications of stable matching algorithm in wireless communication systems. , 2015, , .		0
129	Aging signature properties and an efficient signature determination tool for online monitoring. The Integration VLSI Journal, 2017, 58, 496-503.	2.1	0
130	On the performance of the modulation methods in time-varying molecular communication channels. , 2017, , .		0
131	Application of standard CMOS photodiodes in optical communication systems. , 2017, , .		0
132	Throughput optimization for molecule-as-a-frame communications. , 2017, , .		0
133	Trust-Based Stable Matching Approach for Carrier Aggregated Heterogeneous Networks. , 2018, , .		0
134	Next-Generation data storage: Transistor and DNA. , 2018, , .		0
135	Kernel Density Estimation for Optimal Detection in All-Bit-Line MLC Flash Memories. , 2019, , .		0
136	Using Perfect Codes in Relay Aided Networks: A Security Analysis. , 2019, , .		0
137	Robust matching algorithms for carrier aggregated heterogeneous networks. Physical Communication, 2019, 33, 123-134.	2.1	0
138	Efficient Physical Layer Spoofing Detection with an Autoregressive Model. , 2020, , .		0
139	An Envelope-based Feature for NDA SNR Estimation. , 2020, , .		0
140	BÄ°-Yardimli DaÄŸitik Depolama AÄŸlannda Ortalama Bant GeniÅŸliÄŸi Maliyeti ve Depolama Ã—dunleÅŸimi Average Bandwidth-Cost vs. Storage Trade-off for BS-assisted Distributed Storage Networks. , 2021, , .		0
141	A branch-cut-and-price algorithm for optimal decoding in digital communication systems. Journal of Global Optimization, 2021, 81, 805.	1.8	0
142	Opto-electronic receiver system with post-equalization for visible light communications. , 2020, , .		0
143	Blind Non-Data-Aided Signal-to-Noise Ratio Estimation with Convolutional Neural Networks. , 2020, , .		0