Abolfazl Falahati

List of Publications by Year
in descending order

130 papers	908 citations	623734 14 h-index	580821 25 g-index
132 all docs	132 docs citations	132 times ranked	653 citing authors

#	Article	IF	Citations
1	An Interference Alignment Design with Higher Multiplexing Gain by the Reduced Channel Extension. IEEE Transactions on Vehicular Technology, 2024, , 1-1.	6.3	5
2	Improve Safety and Security of Intelligent Railway Transportation System Based on Balise Using Machine Learning Algorithm and Fuzzy System. International Journal of Intelligent Transportation Systems Research, 2022, 20, 117-131.	1.1	12
3	Ergodic Capacity and Symbol Error Rate Analysis of a Wireless System with α-μ Composite Fading Channel. Wireless Personal Communications, 2022, 124, 103-118.	2.7	3
4	Forming a Two-Tier Heterogeneous Air-Network via Combination of High and Low Altitude Platforms. IEEE Transactions on Vehicular Technology, 2022, 71, 1989-2001.	6.3	12
5	Lattice-Based Coding to Enhance Error Performance of the Hidden Direct Sequence Spread Spectrum. IETE Journal of Research, 2021, 67, 754-766.	2.6	1
6	Accurate Variable-Order Approximations to the Sum of α – μ Variates With Application to MIMO Systems. IEEE Transactions on Wireless Communications, 2021, 20, 1612-1623.	9.2	9
7	Spectral efficiency in non-terrestrial heterogeneous networks with spectrum underlay access. Physical Communication, 2021, 46, 101313.	2.1	3
8	An improved Merkle hash tree based secure scheme for bionic underwater acoustic communication. Frontiers of Information Technology and Electronic Engineering, 2021, 22, 1010-1019.	2.6	3
9	On the channel tracking under uncertain state model for multiuser massive MIMO in high-rate Internet-of-Things. Physical Communication, 2021, 48, 101434.	2.1	2
10	Channel tracking of uncoordinated access under uncertain evolution for massive connectivity with massive MIMO. AEU - International Journal of Electronics and Communications, 2021, 141, 153961.	2.9	2
11	CBTC Systems Safety Enhancement by Employing an IoT-Based Spread Spectrum Technique. , 2021, , .		2
12	A Hidden OSTBC Scheme to Enhance Physical Layer Security by Employing a Pseudorandom Precoder. IEEE Transactions on Communications, 2020, 68, 363-375.	7.8	5
13	On Necessary and Sufficient Conditions of Interference Alignment Feasibility in a MIMO Interference Channel. Wireless Personal Communications, 2020, 111, 1219-1234.	2.7	1
14	Interference alignment and scheduling in clustered partially connected small cell networks. International Journal of Communication Systems, 2020, 33, e4576.	2.5	2
15	Improving symbol error rate of heterogeneous network by clustering, IA, and interference detection. Electronics Letters, 2020, 56, 408-410.	1.0	2
16	Interference Alignment in a Frequency Selective X Channel with Blind Transmitters, Relay and Limited Channel Extensions. , 2020, , .		1
17	SWIPT-NOMA in Cell-Free Massive MIMO. , 2020, , .		3
18	Interference alignment in two‐hop multiple‐input multiple‐output interference channel under various CSI and antenna correlation. IET Communications, 2020, 14, 3599-3606.	2.2	0

#	Article	IF	Citations
19	Design and Implementation of a Visible Light Communication and Coding System Based on IEEE802.15.7 Standard. , 2019, , .		0
20	A novel compact fractal UWB antenna with triple reconfigurable notch reject bands applications. AEU - International Journal of Electronics and Communications, 2019, 101, 1-8.	2.9	41
21	Weighted Sum Rate Maximization Under the Given PAPR Constraints for a Multi-user OFDM System. Wireless Personal Communications, 2019, 109, 127-137.	2.7	2
22	Employing a Pseudo-Random Sequence to Secure a Lattice Coding Scheme. , 2019, , .		0
23	General precoder interference alignment design with achievable higher multiplexing gain and reduced channel extension cases. IET Communications, 2019, 13, 2876-2882.	2.2	4
24	PDF of the Maximum of Two Correlated Random Variables with Applications to Fading Channels. , 2018, , .		3
25	Joint Interference Alignment and Power Allocation in Clustered Small Cells. , 2018, , .		2
26	An analysis and improvement of error control performance of IS-LDPC codes with a large number of subsets. Physical Communication, 2018, 31, 79-86.	2.1	4
27	Precoder design for decentralised estimation over MIMOâ€WSN based on stochastic models. IET Communications, 2018, 12, 736-742.	2.2	7
28	RFID light weight server-less search protocol based on NLFSRs. , 2016, , .		2
29	Distance bounding-based RFID binding proof protocol to protect inpatient medication safety against relay attack. International Journal of Ad Hoc and Ubiquitous Computing, 2016, 22, 71.	0.5	3
30	Nested and interleaved direct sequence spread spectrum to enhance CDMA security and bit error rate performance. International Journal of Communication Systems, 2016, 29, 1907-1915.	2.5	7
31	Removal of the OFDM Segment without Affecting Signalling BER to Provide Higher Data Rate as well as a Cost Efficient Time Processing or a MIMO-OFDM Relay Network. IETE Journal of Research, 2016, 62, 339-346.	2.6	1
32	On Feasibility Conditions for Linear Interference Alignment over Cognitive Interference Channel: A DoF Analysis with Diversity Tradeoff. IETE Journal of Research, 2016, 62, 278-287.	2.6	4
33	Interference alignment in space, time and frequency: achievable DoF analysis. Electronics Letters, 2016, 52, 204-206.	1.0	16
34	An efficient mutual distance bounding protocol over a binary symmetric noisy communication channel. International Journal of Ad Hoc and Ubiquitous Computing, 2015, 20, 1.	0.5	3
35	All-or-nothing approach to protect a distance bounding protocol against terrorist fraud attack for low-cost devices. Electronic Commerce Research, 2015, 15, 75-95.	5.0	7
36	Achieving an appropriate security level for distance bounding protocols over a noisy channel. Telecommunication Systems, 2015, 58, 219-231.	2.5	6

#	Article	IF	Citations
37	Spatial-DoF Improvement of MIMO Cognitive Network Through Interference Fusion in Conjunction with Alignment. Wireless Personal Communications, 2015, 82, 833-847.	2.7	5
38	Analysis of false-reject probability in distance bounding protocols with mixed challenges over RFID noisy communication channel. Information Processing Letters, 2015, 115, 623-629.	0.6	3
39	An RFID Search Protocol Secured Against Relay Attack Based on Distance Bounding Approach. Wireless Personal Communications, 2015, 85, 711-726.	2.7	7
40	An energy-detection based cooperative spectrum sensing algorithm for faded and low-power primary user signal over cognitive radio networks. , 2014, , .		2
41	Localized ageing in the heat affected zone of welded X5CrNiCuNbl6-4 and X4CrNiSiTi14-7 sheets. IOP Conference Series: Materials Science and Engineering, 2014, 60, 012071.	0.6	1
42	Analysis of unilateral distance bounding protocol with mixed predefined and bidirectional challenges over a noisy communication channel. , 2014, , .		1
43	Performance of orthogonal space-time-frequency block codes over highly frequency selective fading channel for 2&#x00D7;1 and 2&#x00D7;2 MIMO-OFDM systems. , 2014, , .		2
44	Resource allocation schemes with subcarriers grouping approach over an orthogonal frequency division multiplexing-based cognitive radio system considering the channel uncertainty. Journal of Communications Technology and Electronics, 2014, 59, 1369-1377.	0.5	0
45	An iterative resource allocation algorithm for multi-user OFDM-CR system with low complexity. , 2014, , .		1
46	Mutual Distance Bounding Protocol with Its Implementability Over a Noisy Channel and Its Utilization for Key Agreement in Peer-to-Peer Wireless Networks. Wireless Personal Communications, 2014, 77, 127-149.	2.7	8
47	Power allocation grouping scheme considering constraints in two separate stages for OFDM-based cognitive radio system. , 2014, , .		3
48	Yield strength prediction in Ni-base alloy 718Plus based on thermo-kinetic precipitation simulation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 608, 114-122.	5.6	78
49	A model for coherency strengthening of large precipitates. Scripta Materialia, 2014, 84-85, 47-50.	5.2	17
50	Precipitate strengthening of non-spherical precipitates extended in ã€^100ã€‰ or {100} direction in fcc crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 590, 262-266.	5.6	35
51	A model for precipitation strengthening in multi-particle systems. Computational Materials Science, 2014, 91, 173-186.	3.0	75
52	Antenna Power Cutback Manipulation to Optimize Relay Power Allocation over MAMR Networks Employing Zero Forcing Scheme. Wireless Personal Communications, 2013, 73, 1215-1225.	2.7	2
53	Joint IR-UWB Power Spectral Lines and Interference Suppression Based on Coded Auxiliary Independent Signaling in Presence of Pulse Attenuation and Timing Jitter. Wireless Personal Communications, 2013, 69, 1241-1260.	2.7	1
54	Robust Relaying Schemes for Multiple-Antenna Multi-Relay Networks. Wireless Personal Communications, 2013, 68, 1611-1631.	2.7	1

#	Article	IF	Citations
55	Resource allocation scheme for cognitive radio system based on COFDM signaling considering secondary user's channel uncertainty. IETE Journal of Research, 2013, 59, 466.	2.6	3
56	Tracking Performance of an Adaptive MIMO-OFDM LS Estimator via MSE Criterion Over a Wireless Time Correlated Fading Channel. Wireless Personal Communications, 2013, 68, 517-533.	2.7	1
57	Wideband Fan-Beam Low-Sidelobe Array Antenna Using Grounded Reflector for DECT, 3G, and Ultra-Wideband Wireless Applications. IEEE Transactions on Antennas and Propagation, 2013, 61, 700-706.	5.1	17
58	Improving Water-Filling Algorithm to Power Control Cognitive Radio System Based Upon Traffic Parameters and QoS. Wireless Personal Communications, 2013, 70, 1747-1759.	2.7	16
59	Spectral efficient impulse radio-ultra-wideband transmission model in presence of pulse attenuation and timing jitter. IET Communications, 2012, 6, 1544.	2.2	3
60	Spectrally efficient ultra wideband transmission over wireless sensor networks. , 2012, , .		1
61	Application of distance bounding protocols with random challenges over RFID noisy communication systems. , 2012, , .		10
62	Security enhanced user authentication scheme for wireless sensor network. International Journal of Electronic Security and Digital Forensics, 2012, 4, 215.	0.2	1
63	Optimum Hardware-Architecture for Modular Divider in GF(2 m) with Chaos as Arbitrary Source Based on ECC. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 245-252.	0.3	0
64	Mutual implementation of predefined and random challenges over RFID distance bounding protocol. , 2012, , .		11
65	Amplify-forward relaying for multiple-antenna multiple relay networks under individual power constraint at each relay. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	7
66	Cryptanalysis and Enhancement of a Secure Group Ownership Transfer Protocol for RFID Tags. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 186-193.	0.3	5
67	Employing Power Allocation to Enhance Zero Forcing Scheme Advantages over Multi-Antenna Multiple Relay Networks. International Journal of Communications, Network and System Sciences, 2012, 05, 736-742.	0.6	0
68	Bandwidth and Impedance-Matching Enhancement of Fractal Monopole Antennas Using Compact Grounded Coplanar Waveguide. IEEE Transactions on Antennas and Propagation, 2011, 59, 2480-2487.	5.1	47
69	Employing relay ordering in incremental amplify and forward Relaying technique to improve outage probability. , 2011, , .		2
70	Application of fractal binary tree slot to design and construct a dual band-notch CPW-ground-fed ultra-wide band antenna. IET Microwaves, Antennas and Propagation, 2011, 5, 1424.	1.4	36
71	Analysis of precipitation kinetics in Al-Ge and Al-Ge-Si alloys by dilatometry. Metallic Materials, 2011, 49, 101-106.	0.3	2
72	Bandwidth enhancement and decreasing ultra-wideband pulse response distortion of Penta–Gasket–Koch monopole antennas using compact-grounded co-planar wave guides. IET Microwaves, Antennas and Propagation, 2011, 5, 48.	1.4	12

#	Article	IF	Citations
73	A secure cryptosystem based on affine transformation. Security and Communication Networks, 2011, 4, 207-215.	1.5	17
74	Alternative approach of constructing a digital underwater communication system with negative SNR as well as higher security. , 2011, , .		1
75	Adding liraglutide to oral antidiabetic drug therapy: onset of treatment effects over time. International Journal of Clinical Practice, 2010, 64, 267-276.	1.7	52
76	MIMO relaying for multi-user transmission using a two stage transmit and relay pre-processing technique. , 2010, , .		1
77	Power allocation for Zero Forcing scheme in Multi-Antenna Multiple Relays Networks. , 2010, , .		4
78	AF relaying for Multiple Antenna Multiple Relay Networks under individual power constraint at each relay. , 2010, , .		1
79	SSDF protection in cooperative spectrum sensing employing a computational trust evaluation algorithm. , 2010, , .		10
80	A Proxy Signature Scheme Based on Coding Theory. Communications in Computer and Information Science, 2010, , 282-290.	0.5	3
81	Adaptive MIMO LS estimation technique via MSE criterion over a Markov channel model. , 2010, , .		3
82	Modification of short length LT block coding technique by removing LT weaknesses with an equivalent matrix. , 2010, , .		2
83	A transmit preprocessing technique in fixed relay networks for practical multiuser transmission. , 2010, , .		3
84	An Improved Multi-path Key Establishment under REM Attacks in Wireless Sensor Networks. , 2010, , .		0
85	Partially Key Distribution with Public Key Cryptosystem Based on Error Control Codes. Communications in Computer and Information Science, 2010, , 291-299.	0.5	0
86	New space and time coding with high performance and very low peak to average power ratio. , 2009, , .		0
87	New EO-STBC with more feedback bits in inaccurate channel feedback. , 2009, , .		1
88	On Total Call Setup Waiting Time Probability Distribution in IMS Signaling Network. , 2009, , .		4
89	On the Cooperation and Power Allocation Schemes for Multiple-Antenna Multiple-Relay Networks. , 2009, , .		5
90	Using Quantum Cryptography for Securing Wireless LAN Networks. , 2009, , .		4

#	Article	IF	Citations
91	A secure variant of the Hill Cipher. , 2009, , .		29
92	Overcoming Overload in IMS by Employment of Multiserver Nodes and Priority Queues. , 2009, , .		7
93	Dual Band-Notch CPW-Ground-Fed UWB Antenna by Fractal Binary Tree Slot. , 2009, , .		19
94	New fast density evolution method for low density parity-check codes using higher-order statistic. IET Communications, 2008, 2, 144.	2.2	0
95	Tomlinsonâ€"Harashima precoding with imperfect channel state information. IET Communications, 2008, 2, 151.	2.2	25
96	Probability-Based Rake Receiver in Ultra-Wideband Multiple Access Systems. , 2008, , .		0
97	Classic Miniature Fractal Monopole Antennae for UWB Applications; Modification of The Feeding Structures of Fractal Antenna for Improving Performances. , 2008, , .		3
98	Dynamic Tree Pruning Method for Fast ACELP Search. , 2008, , .		1
99	Achievable Rates and Power Loading in MIMO-THP Systems. , 2008, , .		1
100	Combination of turbo coding and cryptography in NONGEO satellite communication systems. , 2008, , .		11
101	Exploiting Error-Control Coding in Blind Channel Estimation. , 2008, , .		0
102	MIMO Precoding with ESPRIT-Like Blind Channel Estimation. , 2008, , .		1
103	CONVOLUTIONAL CODES ACTING AS EMI VIRTUAL SHIELDS IN CURRENT INJECTION SYSTEMS. Progress in Electromagnetics Research, 2008, 88, 337-353.	4.4	3
104	An Improved Low-Complexity Resource Allocation Algorithm for OFDMA Systems with Proportional Data Rate Constraint. International Conference on Advanced Communication Technology, 2007, , .	0.0	4
105	Joint channel estimation and spatial pre-equalisation in MIMO systems. Electronics Letters, 2007, 43, 1372.	1.0	3
106	Number of Antenna Considerations and Power Allocation in MIMO Broadcast Channels. International Conference on Advanced Communication Technology, 2007, , .	0.0	1
107	A New MAP-based Algorithm to Reduce the Complexity of Turbo Decoder. International Conference on Advanced Communication Technology, 2007, , .	0.0	0
108	An Improved ICI Reduction Method in OFDM Communication System in Presence of Phase Noise. , 2007, , .		3

#	Article	IF	Citations
109	Modified Blackman Window for Generating Long Complex Gaussian Sequences. , 2007, , .		0
110	Maximum Likelihood-Based Space-Time Transmit Diversity Receiver Scheme for WCDMA. International Conference on Advanced Communication Technology, 2007, , .	0.0	0
111	An Improved ICI Reduction Method in OFDM Communication System in Presence of Phase Noise. , 2007, , .		0
112	New Analytical Method to Investigate the Effect of Normalized Doppler rate on the Capacity of MIMO channels Using Karhunen-Loeve Expansion. , 2007, , .		0
113	Power Loading by Minimizing the Average Symbol Error Rate on MIMO THP Systems. International Conference on Advanced Communication Technology, 2007, , .	0.0	7
114	Improving code division multiple access security by applying encryption methods over the spreading codes. IET Communications, 2007, 1, 398.	2.2	15
115	Tomlinson-Harashima Precoding with Imperfect Channel Side Information. International Conference on Advanced Communication Technology, 2007, , .	0.0	8
116	New Channel Orthogonalization Using STBC-OFDM with Low Partial Feedback. , 2007, , .		0
117	Blind Detection in CDMA Systems Using Nonparametric Likelihood Ratio Criterion. International Conference on Advanced Communication Technology, 2007, , .	0.0	0
118	A new distinguish attack against ABC stream cipher. International Conference on Advanced Communication Technology, 2007, , .	0.0	0
119	Notice of Violation of IEEE Publication Principles - Security Enhancement in CDMA with a Hidden Direct Sequence Spread Spectrum System. , 2006, , .		2
120	Reducing The Effect of Channel Time Variations in MIMO Broadcast Systems. , 2006, , .		4
121	A New Fast Density Evolution Method for LDPC Codes Using Higher Order Statistics. , 2006, , .		0
122	Implementation of adaptive 5400 bit/s modem over frequency selective HF radio links. Electronics Letters, 1992, 28, 1238.	1.0	0
123	Underwater acoustic channel models for 4800 b/s QPSK signals. IEEE Journal of Oceanic Engineering, 1991, 16, 12-20.	3.8	37
124	Modification of maximum power handoff with timer (MPHT) algorithm in cellular mobile communication systems. , 0, , .		0
125	New handoff initiation algorithm (optimum combination of hysteresis & threshold based methods). , 0, , .		10
126	Providing traffic engineering capabilities in data networks. , 0, , .		0

#	Article	IF	Citations
127	High speed reed-solomon decoder with pipeline architecture. , 0, , .		3
128	User Selection and Signaling Over Time-Varying MIMO Broadcast Channels. , 0, , .		3
129	Spirit-like Multiuser Symbol Detection with Multiple Receive Antenna. , 0, , .		1
130	A High Bandwidth Efficiency Adaptive Turbo Trellis Coded OFDM over A Wideband Fading Channel. , 0, , .		0