Ahmed Farouk

List of Publications by Year in descending order

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Version: 2024-02-01

95 papers	2,451 citations	218677 26 h-index	223800 46 g-index
96 all docs	96 docs citations	96 times ranked	1386 citing authors

#	Article	IF	Citations
1	Secure Medical Data Transmission Model for IoT-Based Healthcare Systems. IEEE Access, 2018, 6, 20596-20608.	4.2	427
2	Blockchain platform for industrial healthcare: Vision and future opportunities. Computer Communications, 2020, 154, 223-235.	5.1	204
3	K-Coverage Model Based on Genetic Algorithm to Extend WSN Lifetime. , 2017, 1, 1-4.		117
4	Red-Green-Blue multi-channel quantum representation of digital images. Optik, 2017, 128, 121-132.	2.9	90
5	A new secure quantum watermarking scheme. Optik, 2017, 139, 77-86.	2.9	80
6	New quantum dialogue protocol based on continuous-variable two-mode squeezed vacuum states. Quantum Information Processing, 2017, 16, 1.	2.2	75
7	Dynamic Multi-hop Clustering in a Wireless Sensor Network: Performance Improvement. Wireless Personal Communications, 2017, 95, 3733-3753.	2.7	70
8	A generalized architecture of quantum secure direct communication for N disjointed users with authentication. Scientific Reports, 2015, 5, 16080.	3.3	67
9	A scheme for secure quantum communication network with authentication using GHZ-like states and cluster states controlled teleportation. Quantum Information Processing, 2015, 14, 4279-4295.	2.2	61
10	Robust general N user authentication scheme in a centralized quantum communication network via generalized GHZ states. Frontiers of Physics, 2018, 13, 1.	5.0	56
11	Practical Network Coding Technologies and Softwarization in Wireless Networks. IEEE Internet of Things Journal, 2021, 8, 5211-5218.	8.7	56
12	Secret sharing of a known arbitrary quantum state with noisy environment. Quantum Information Processing, 2015, 14, 4211-4224.	2.2	53
13	Architecture of multicast centralized key management scheme using quantum key distribution and classical symmetric encryption. European Physical Journal: Special Topics, 2014, 223, 1711-1728.	2.6	48
14	A New Quantum Watermarking Based on Quantum Wavelet Transforms. Communications in Theoretical Physics, 2017, 67, 732.	2.5	48
15	Quantum Cryptography Based on the Deutsch-Jozsa Algorithm. International Journal of Theoretical Physics, 2017, 56, 2887-2897.	1.2	44
16	Shareability of correlations in multiqubit states: Optimization of nonlocal monogamy inequalities. Physical Review A, 2017, 95, .	2.5	43
17	Secure dynamic multiparty quantum private comparison. Scientific Reports, 2019, 9, 17818.	3.3	39
18	Enhanced-AODV: A Robust Three Phase Priority-Based Traffic Load Balancing Scheme for Internet of Things. IEEE Internet of Things Journal, 2022, 9, 14426-14437.	8.7	38

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19	Equilibrium and uniform charge distribution of a classical two-dimensional system of point charges with hard-wall confinement. Physica Scripta, 2017, 92, 055801.	2.5	37
20	Creating Very True Quantum Algorithms for Quantum Energy Based Computing. International Journal of Theoretical Physics, 2018, 57, 973-980.	1.2	37
21	Hash-MAC-DSDV: Mutual Authentication for Intelligent IoT-Based Cyberâ€“Physical Systems. IEEE Internet of Things Journal, 2022, 9, 22173-22183.	8.7	37
22	Improved Dynamic Multi-Party Quantum Private Comparison for Next-Generation Mobile Network. IEEE Access, 2019, 7, 17917-17926.	4.2	36
23	A lightweight intelligent intrusion detection system for industrial internet of things using deep learning algorithms. Expert Systems, 2022, 39, .	4.5	34
24	Relay selection scheme for amplifyâ€andâ€forward cooperative communication system with artificial noise. Security and Communication Networks, 2016, 9, 1398-1404.	1.5	32
25	Do multipartite correlations speed up adiabatic quantum computation or quantum annealing?. Quantum Information Processing, 2016, 15, 3081-3099.	2.2	29
26	MHADBOR: AI-Enabled Administrative-Distance-Based Opportunistic Load Balancing Scheme for an Agriculture Internet of Things Network. IEEE Micro, 2022, 42, 41-50.	1.8	29
27	Modelling the spice parameters of SOI MOSFET using a combinational algorithm. Cluster Computing, 2019, 22, 4683-4692.	5.0	27
28	Global versus local quantum correlations in the Grover search algorithm. Quantum Information Processing, 2016, 15, 833-849.	2.2	26
29	Improving the security of quantum key agreement protocols with single photon in both polarization and spatial-mode degrees of freedom. Quantum Information Processing, 2018, 17, 1.	2.2	25
30	Prediction of novel SiX2(Xâ€¯=â€¯S, Se) monolayer semiconductors by density functional theory. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 114, 113581.	2.7	25
31	FIDChain: Federated Intrusion Detection System for Blockchain-Enabled IoT Healthcare Applications. Healthcare (Switzerland), 2022, 10, 1110.	2.0	22
32	Multipartite quantum correlations among atoms in QED cavities. Frontiers of Physics, 2018, 13, 1.	5.0	21
33	Quantum Correlation via Skew Information and Bell Function Beyond Entanglement in a Two-Qubit Heisenberg XYZ Model: Effect of the Phase Damping. Applied Sciences (Switzerland), 2020, 10, 3782.	2.5	21
34	Solving Vehicle Routing Problem Using Quantum Approximate Optimization Algorithm. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 7564-7573.	8.0	21
35	A new cryptography algorithm for quantum images. Optik, 2018, 171, 947-959.	2.9	20
36	Three Byte-Based Mutual Authentication Scheme for Autonomous Internet of Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 9358-9369.	8.0	18

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37	HOPCTP: A Robust Channel Categorization Data Preservation Scheme for Industrial Healthcare Internet of Things. IEEE Transactions on Industrial Informatics, 2022, 18, 7151-7161.	11.3	17
38	A New Quantum Gray-Scale Image Encoding Scheme. Communications in Theoretical Physics, 2018, 69, 215.	2.5	16
39	Big data analysis techniques for intelligent systems. Journal of Intelligent and Fuzzy Systems, 2019, 37, 3067-3071.	1.4	16
40	A new general model for quantum image histogram (QIH). Quantum Information Processing, 2019, 18, 1.	2.2	16
41	Nonlocality in pure and mixed n-qubit X states. Quantum Information Processing, 2016, 15, 1553-1567.	2.2	15
42	An AI-Enabled Hybrid Lightweight Authentication Scheme for Intelligent IoMT Based Cyber-Physical Systems. IEEE Transactions on Network Science and Engineering, 2023, 10, 2719-2730.	6.4	14
43	Equilibrium charge distribution on a finite straight one-dimensional wire. European Journal of Physics, 2017, 38, 055202.	0.6	13
44	Revival of Bell nonlocality across a quantum spin chain. International Journal of Quantum Information, 2016, 14, 1650037.	1.1	12
45	Quantum correlations in two coupled superconducting charge qubits. International Journal of Modern Physics B, 2016, 30, 1650123.	2.0	12
46	Density functional theory based prediction of a new two-dimensional TeSe2 semiconductor: A case study on the electronic properties. Chemical Physics Letters, 2018, 707, 160-164.	2.6	12
47	Persistence of quantum correlations in a XY spin-chain environment. European Physical Journal B, 2016, 89, 1.	1.5	11
48	Quantum information approach to the azurite mineral frustrated quantum magnet. Quantum Information Processing, 2016, 15, 2839-2850.	2.2	11
49	Boolean approach to dichotomic quantum measurement theories. Journal of the Korean Physical Society, 2017, 70, 229-235.	0.7	11
50	Secure Image Processing and Transmission Schema in Cluster-Based Wireless Sensor Network. Advances in Computational Intelligence and Robotics Book Series, 2017, , 1022-1040.	0.4	11
51	Quantum-Assisted Activation for Supervised Learning in Healthcare-based Intrusion Detection Systems. IEEE Transactions on Artificial Intelligence, 2024, , 1-8.	4.7	11
52	Multipartite non-locality and entanglement signatures of a field-induced quantum phase transition. European Physical Journal B, 2017, 90, 1.	1.5	10
53	Multipartite correlation degradation in amplitude-damping quantum channels. Journal of the Korean Physical Society, 2017, 70, 666-672.	0.7	10
54	The Population Inversion and the Entropy of a Moving Two-Level Atom in Interaction with a Quantized Field. International Journal of Theoretical Physics, 2018, 57, 2319-2329.	1.2	10

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55	A Proposed Architecture for Key Management Schema in Centralized Quantum Network. Advances in Computational Intelligence and Robotics Book Series, 2017, , 997-1021.	0.4	10
56	QoS Review: Smart Sensing in Wake of COVID-19, Current Trends and Specifications With Future Research Directions. IEEE Sensors Journal, 2023, 23, 865-876.	4.7	10
57	A moving three-level Î›-type atom in a dissipative cavity. European Physical Journal D, 2017, 71, 1.	1.3	9
58	Entanglement and Entropy of a Three-Qubit System Interacting with a Quantum Spin Environment. Applied Sciences (Switzerland), 2019, 9, 5222.	2.5	9
59	Squeezing dynamics of a nanowire system with spin-orbit interaction. Scientific Reports, 2018, 8, 10484.	3.3	8
60	A moving three-level atom interacting with a two-mode field: some atomâ€“field aspects. Journal of Modern Optics, 2016, 63, 2315-2325.	1.3	7
61	Pauli structures arising from confined particles interacting via a statistical potential. Annals of Physics, 2017, 384, 11-19.	2.8	6
62	New Method of Calculating a Multiplication by using the Generalized Bernstein-Vazirani Algorithm. International Journal of Theoretical Physics, 2018, 57, 1605-1611.	1.2	6
63	Controlling steady-state entanglement and quantum discord through squeezing angle. Chaos, Solitons and Fractals, 2019, 128, 382-389.	5.1	6
64	Generalization of the Bernsteinâ€“Vazirani algorithm beyond qubit systems. Quantum Studies: Mathematics and Foundations, 2020, 7, 17-21.	0.9	6
65	Efficient Quantum Algorithms of Finding the Roots of a Polynomial Function. International Journal of Theoretical Physics, 2018, 57, 2546-2555.	1.2	5
66	Fisher and Skew Information Correlations of Two Coupled Trapped Ions: Intrinsic Decoherence and Lamb-Dicke Nonlinearity. Symmetry, 2021, 13, 2243.	2.2	4
67	Quantum Computing and Cryptography: An Overview. Studies in Big Data, 2018, , 63-100.	1.1	3
68	No-Cloning Theorem, Kochen-Specker Theorem, and Quantum Measurement Theories. International Journal of Theoretical Physics, 2019, 58, 1845-1853.	1.2	3
69	Entanglement Control of Two-Level Atoms in Dissipative Cavities. Applied Sciences (Switzerland), 2020, 10, 1510.	2.5	3
70	Dynamics of two coupled qubits interacting with two-photon transitions via a nondegenerate parametric amplifier: nonlocal correlations under intrinsic decoherence. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 3435.	2.1	3
71	Efficient Quantum Algorithm for the Parity Problem of a Certain Function. International Journal of Theoretical Physics, 2018, 57, 3098-3103.	1.2	2
72	Robustness of Generated Geometric Phase of Quantum Wells in Two Open Waveguide-Coupled Optical Cavities. IEEE Access, 2020, 8, 158745-158751.	4.2	2

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73	Entanglement in the linear-chain Heisenberg antiferromagnet Cu(C4H4N2)(NO3)2. European Physical Journal B, 2017, 90, 1.	1.5	1
74	Quantum Key Distribution Over Multi-point Communication System: An Overview. Studies in Big Data, 2018, , 101-121.	1.1	1
75	Multi-parties Quantum Secure Direct Communication with Authentication. Studies in Big Data, 2018, , 143-184.	1.1	1
76	Applications of Quantum Mechanics in Secure Communication. Studies in Big Data, 2018, , 25-40.	1.1	1
77	Quantum Cryptography, Quantum Communication, and Quantum Computing in a Noisy Environment. Studies in Big Data, 2018, , 185-205.	1.1	1
78	Better Entanglement Witness for Genuine Multipartite Entanglement. International Journal of Theoretical Physics, 2018, 57, 2116-2120.	1.2	1
79	Quantum Algorithm for Determining a Complex Number String. International Journal of Theoretical Physics, 2019, 58, 3694-3701.	1.2	1
80	New Approach to Finding the Maximum Number of Mutually Unbiased Bases in C6. Applied Mathematics and Information Sciences, 2016, 10, 2077-2082.	0.5	1
81	Multipartite quantum correlations in the extended J₁â€“J₂ Heisenberg model. International Journal of Modern Physics B, 2017, 31, 1750206.	2.0	0
82	Nonlocality dynamics for an eight-qubit model in cavity QEDs. International Journal of Quantum Information, 2017, 15, 1750035.	1.1	0
83	Morphogenetic Sources in Quantum, Neural and Wave Fields: Part 1. Studies in Big Data, 2018, , 317-350.	1.1	0
84	Morphogenetic Sources in Quantum, Neural and Wave Fields: Part 2. Studies in Big Data, 2018, , 351-385.	1.1	0
85	IPsec Multicast Architecture Based on Quantum Key Distribution, Quantum Secret Sharing and Measurement. Studies in Big Data, 2018, , 123-142.	1.1	0
86	Different Architectures of Quantum Key Distribution Network. Studies in Big Data, 2018, , 41-61.	1.1	0
87	First principles prediction of XI (X=Be, Mg) monolayer semiconductors: Modified Becke-Johnson approach. Optik, 2019, 186, 332-338.	2.9	0
88	Direct Observation of Dissipation in Dynamical Search Algorithm using Transmon Qubits. Annalen Der Physik, 2019, 531, 1900022.	2.4	0
89	Necessary and Sufficient Condition for Quantum Computing. International Journal of Theoretical Physics, 2019, 58, 136-142.	1.2	0
90	New properties of a pure bipartite system in presence of dissipative environments. AEJ - Alexandria Engineering Journal, 2020, 59, 1215-1221.	6.4	0

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91	Multi-objective reference point based enriched swarm optimization with an application to blood supply chain under natural disaster. Journal of Intelligent and Fuzzy Systems, 2021, 41, 715-733.	1.4	0
92	Proposal for a Quantum-Based Memory for Storing Classical Information and the Connection Between Molecular Dynamics Simulations and the Landauerâ€™s Principle. Studies in Big Data, 2018, , 291-316.	1.1	0
93	User Authentication In Quantum Computing. , 2018, , .		0
94	Squeezing Dynamics In A Nanowire System. , 2018, , .		0
95	Quantum computational speed of a nanowires system with Rashba interaction in the presence of a magnetic field. Scientific Reports, 2021, 11, 22726.	3.3	0