

# Iqtadar Hussain

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

108  
papers

2,035  
citations

28  
h-index

41  
g-index

114  
ext. papers

2,505  
ext. citations

2.8  
avg, IF

5.73  
L-index

#	Paper	IF	Citations
108	Cryptanalysis and Improvement of Novel Image Encryption Technique Using Hybrid Method of Discrete Dynamical Chaotic Maps and Brownian Motion. <i>Multimedia Tools and Applications</i> , <b>2022</b> , 81, 6571	2.5	2
107	A simple one-dimensional map-based model of spiking neurons with wide ranges of firing rates and complexities.. <i>Journal of Theoretical Biology</i> , <b>2022</b> , 111062	2.3	0
106	CGST: Provably Secure Lightweight Certificateless Group Signcryption Technique based on Fractional Chaotic Maps. <i>IEEE Access</i> , <b>2022</b> , 1-1	3.5	
105	A Simple Conservative Chaotic Oscillator with Line of Equilibria: Bifurcation Plot, Basin Analysis, and Multistability. <i>Complexity</i> , <b>2022</b> , 2022, 1-7	1.6	1
104	A Novel Highly Nonlinear Quadratic System: Impulsive Stabilization, Complexity Analysis, and Circuit Designing. <i>Complexity</i> , <b>2022</b> , 2022, 1-14	1.6	0
103	Symmetric Oscillator: Special Features, Realization, and Combination Synchronization. <i>Symmetry</i> , <b>2021</b> , 13, 2142	2.7	0
102	Various bifurcations in the development of stem cells. <i>European Physical Journal: Special Topics</i> , <b>2021</b> , 1-7	2.3	0
101	Asymmetric Cryptosystem on Matrix Algebra over a Chain Ring. <i>Symmetry</i> , <b>2021</b> , 13, 45	2.7	
100	A Noise-Tolerant Audio Encryption Framework Designed by the Application of S8 Symmetric Group and Chaotic Systems. <i>Mathematical Problems in Engineering</i> , <b>2021</b> , 2021, 1-15	1.1	2
99	A image encryption algorithm based on chaotic Lorenz system and novel primitive polynomial S-boxes. <i>Multimedia Tools and Applications</i> , <b>2021</b> , 80, 24801	2.5	10
98	A New Memristive Chaotic System with a Plane and Two Lines of Equilibria. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2021</b> , 31, 2150066	2	1
97	A New Megastable Chaotic Oscillator with Blinking Oscillation terms. <i>Complexity</i> , <b>2021</b> , 2021, 1-12	1.6	5
96	Synchronization and chimeras in a network of photosensitive FitzHugh-Nagumo neurons. <i>Nonlinear Dynamics</i> , <b>2021</b> , 104, 2711-2721	5	14
95	Simplest symmetric chaotic flows: the strange case of asymmetry in Master Stability Function. <i>European Physical Journal: Special Topics</i> , <b>2021</b> , 230, 1999-2010	2.3	1
94	A New Circumscribed Self-Excited Spherical Strange Attractor. <i>Complexity</i> , <b>2021</b> , 2021, 1-8	1.6	3
93	Chimera State in the Network of Fractional-Order FitzHugh-Nagumo Neurons. <i>Complexity</i> , <b>2021</b> , 2021, 1-9	1.6	7
92	A Simple Guide for Plotting a Proper Bifurcation Diagram. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2021</b> , 31, 2150011	2	3

91	An efficient image encryption scheme based on fractal Tromino and Chebyshev polynomial. <i>Complex &amp; Intelligent Systems</i> , <b>2021</b> , 7, 2751	7.1	4
90	A fractional-order ship power system: chaos and its dynamical properties. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , <b>2021</b> ,	1.8	3
89	A Novel Megastable Oscillator with a Strange Structure of Coexisting Attractors: Design, Analysis, and FPGA Implementation. <i>Complexity</i> , <b>2021</b> , 2021, 1-11	1.6	0
88	Proposing and Dynamical Analysis of a Hyperjerk Piecewise Linear Chaotic System with Offset Boostable Variable and Hidden Attractors. <i>Complexity</i> , <b>2021</b> , 2021, 1-11	1.6	0
87	Pauli Half Spinning and Elliptic Curve Based Information Confidentiality Mechanism. <i>International Journal of Theoretical Physics</i> , <b>2021</b> , 60, 3631-3650	1.1	1
86	New combination of simple additive and entropy weighting criteria for the selection of best substitution box. <i>Journal of Intelligent and Fuzzy Systems</i> , <b>2021</b> , 41, 2325-2338	1.6	2
85	A Novel Hybrid Secure Confidentiality Mechanism for Medical Environment Based on Kramer's Spin Principle. <i>International Journal of Theoretical Physics</i> , <b>2021</b> , 60, 314-330	1.1	5
84	A Chaotic Quadratic Bistable Hyperjerk System with Hidden Attractors and a Wide Range of Sample Entropy: Impulsive Stabilization. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2021</b> , 31,	2	1
83	Circuit implementation of 3D chaotic self-exciting single-disk homopolar dynamo and its application in digital image confidentiality. <i>Wireless Networks</i> , <b>2020</b> , 1	2.5	18
82	A fractional-order model for the novel coronavirus (COVID-19) outbreak. <i>Nonlinear Dynamics</i> , <b>2020</b> , 101, 1-8	5	72
81	Fracmemristor chaotic oscillator with multistable and antimonotonicity properties. <i>Journal of Advanced Research</i> , <b>2020</b> , 25, 137-145	13	8
80	Wave propagation and spiral wave formation in a Hindmarsh-Rose neuron model with fractional-order threshold memristor synaps. <i>International Journal of Modern Physics B</i> , <b>2020</b> , 34, 2050157 <sup>11</sup>	1.1	11
79	A new megastable nonlinear oscillator with infinite attractors. <i>Chaos, Solitons and Fractals</i> , <b>2020</b> , 134, 109703	9.3	23
78	Investigation of Early Warning Indexes in a Three-Dimensional Chaotic System with Zero Eigenvalues. <i>Entropy</i> , <b>2020</b> , 22,	2.8	4
77	A Novel Secure Occupancy Monitoring Scheme Based on Multi-Chaos Mapping. <i>Symmetry</i> , <b>2020</b> , 12, 3502.7	2.7	16
76	A new oscillator with mega-stability and its Hamilton energy: Infinite coexisting hidden and self-excited attractors. <i>Chaos</i> , <b>2020</b> , 30, 033112	3.3	31
75	An Encryption Scheme Based on Discrete Quantum Map and Continuous Chaotic System. <i>International Journal of Theoretical Physics</i> , <b>2020</b> , 59, 1227-1240	1.1	25
74	Delay-induced synchronization in two coupled chaotic memristive Hopfield neural networks. <i>Chaos, Solitons and Fractals</i> , <b>2020</b> , 134, 109702	9.3	23

73	A Novel Hybrid Secure Image Encryption Based on Julia Set of Fractals and 3D Lorenz Chaotic Map. <i>Entropy</i> , <b>2020</b> , 22,	2.8	46
72	Extreme multi-stability analysis of a novel 5D chaotic system with hidden attractors, line equilibrium, permutation entropy and its secure communication scheme. <i>European Physical Journal: Special Topics</i> , <b>2020</b> , 229, 1175-1188	2.3	9
71	Simple megastable oscillators with different types of attractors; tori, chaotic and hyperchaotic ones. <i>European Physical Journal: Special Topics</i> , <b>2020</b> , 229, 1155-1161	2.3	4
70	Copper selenide thin films from growth to applications. <i>Solid State Sciences</i> , <b>2020</b> , 100, 106101	3.4	14
69	Chaotic dynamics of a fractional order glucose-insulin regulatory system. <i>Frontiers of Information Technology and Electronic Engineering</i> , <b>2020</b> , 21, 1108-1118	2.2	7
68	A new megastable chaotic oscillator with singularity. <i>European Physical Journal: Special Topics</i> , <b>2020</b> , 229, 2341-2348	2.3	2
67	A novel symmetric image cryptosystem resistant to noise perturbation based on S8 elliptic curve S-boxes and chaotic maps. <i>European Physical Journal Plus</i> , <b>2020</b> , 135, 1	3.1	3
66	True-chaotic substitution box based on Boolean functions. <i>European Physical Journal Plus</i> , <b>2020</b> , 135, 1	3.1	5
65	A Novel Method to Identify Initial Values of Chaotic Maps in Cybersecurity. <i>Symmetry</i> , <b>2019</b> , 11, 140	2.7	16
64	Fabrication and applications of nickel selenide. <i>Journal of Solid State Chemistry</i> , <b>2019</b> , 277, 316-328	3.3	28
63	A Simple Chaotic System With Topologically Different Attractors. <i>IEEE Access</i> , <b>2019</b> , 7, 89936-89947	3.5	16
62	Synthesis, characterization and biological applications of selenoureas having ferrocene and substituted benzoyl functionalities. <i>Polyhedron</i> , <b>2019</b> , 170, 12-24	2.7	7
61	Numerical Study to Coupled Three Dimensional Reaction Diffusion System. <i>IEEE Access</i> , <b>2019</b> , 7, 46695-46705	3.5	2
60	Construction of S-Box Based on Chaotic Map and Algebraic Structures. <i>Symmetry</i> , <b>2019</b> , 11, 351	2.7	27
59	Birth and death of spiral waves in a network of HindmarshRose neurons with exponential magnetic flux and excitable media. <i>Applied Mathematics and Computation</i> , <b>2019</b> , 354, 377-384	2.7	24
58	Parameter estimation in a new chaotic memristive system using ions motion optimization. <i>European Physical Journal: Special Topics</i> , <b>2019</b> , 228, 2133-2145	2.3	4
57	Entropy Analysis and Image Encryption Application Based on a New Chaotic System Crossing a Cylinder. <i>Entropy</i> , <b>2019</b> , 21, 958	2.8	22
56	A Privacy Scheme for Digital Images Based on Quantum Particles. <i>International Journal of Theoretical Physics</i> , <b>2019</b> , 58, 4293-4310	1.1	15

55	Chimera state in a two-dimensional network of coupled genetic oscillators. <i>Europhysics Letters</i> , <b>2019</b> , 127, 40001	1.6	2
54	Cadmium selenide nanowires from growth to applications. <i>Materials Research Express</i> , <b>2019</b> , 6, 122007	1.7	5
53	Construction of chaotic quantum magnets and matrix Lorenz systems S-boxes and their applications. <i>Chinese Journal of Physics</i> , <b>2018</b> , 56, 1609-1621	3.5	30
52	Extension of TOPSIS method base on Choquet integral under interval-valued Pythagorean fuzzy environment. <i>Journal of Intelligent and Fuzzy Systems</i> , <b>2018</b> , 34, 267-282	1.6	75
51	A noise resistant symmetric key cryptosystem based on S8 S-boxes and chaotic maps. <i>European Physical Journal Plus</i> , <b>2018</b> , 133, 1	3.1	28
50	Linear triangular optimization technique and pricing scheme in residential energy management systems. <i>Results in Physics</i> , <b>2018</b> , 9, 858-865	3.7	5
49	A novel algorithm for thermal image encryption. <i>Journal of Integrative Neuroscience</i> , <b>2018</b> , 17, 447-461	1.5	10
48	Heat and mass transport phenomena of radiated slender body of three revolutions with saturated porous: Buongiorno's model. <i>International Journal of Thermal Sciences</i> , <b>2018</b> , 132, 309-315	4.1	36
47	On Some Statistical Approximation by (p,q)-Bleimann, Butzer and Hahn Operators. <i>Symmetry</i> , <b>2018</b> , 10, 731	2.7	12
46	Applied Cryptography and Noise Resistant Data Security. <i>Security and Communication Networks</i> , <b>2018</b> , 2018, 1-2	1.9	3
45	A Robust Watermarking Scheme for Online Multimedia Copyright Protection Using New Chaotic Map. <i>Security and Communication Networks</i> , <b>2018</b> , 2018, 1-20	1.9	9
44	An algorithm for the construction of substitution box for block ciphers based on projective general linear group. <i>AIP Advances</i> , <b>2017</b> , 7, 035116	1.5	28
43	Analyses of S-boxes based on interval valued intuitionistic fuzzy sets and image encryption. <i>International Journal of Computational Intelligence Systems</i> , <b>2017</b> , 10, 851	3.4	8
42	Optical image encryption based on S-box transformation and fractional Hartley transform. <i>JVC/Journal of Vibration and Control</i> , <b>2016</b> , 22, 1143-1146	2	7
41	Construction of Substitution Box Based on Piecewise Linear Chaotic Map and S8 Group. <i>3D Research</i> , <b>2015</b> , 6, 1	2.4	3
40	A novel design for the construction of safe S-boxes based on TDERC sequence. <i>AEJ - Alexandria Engineering Journal</i> , <b>2015</b> , 54, 65-69	6.1	24
39	An Efficient Method for Secure Communication of Biometric Information Based on Chaos. <i>3D Research</i> , <b>2015</b> , 6, 1	2.4	1
38	An image encryption technique based on coupled map lattice and one-time S-Boxes based on complex chaotic system. <i>Journal of Intelligent and Fuzzy Systems</i> , <b>2015</b> , 29, 1493-1500	1.6	8

37	Construction of Dynamical Non-linear Components Based on Lorenz System and Symmetric Group of Permutations. <i>3D Research</i> , <b>2015</b> , 6, 1	2.4	1
36	A technique for digital steganography using chaotic maps. <i>Nonlinear Dynamics</i> , <b>2014</b> , 75, 807-816	5	59
35	Stego optical encryption based on chaotic S-box transformation. <i>Optics and Laser Technology</i> , <b>2014</b> , 61, 50-56	4.2	41
34	Image encryption algorithm based on total shuffling scheme and chaotic S-box transformation. <i>JVC/Journal of Vibration and Control</i> , <b>2014</b> , 20, 2133-2136	2	17
33	A Scheme for Obtaining Secure S-Boxes Based on Chaotic Baker's Map. <i>3D Research</i> , <b>2014</b> , 5, 1	2.4	19
32	Impact of Error Detecting or Correcting Codes on the Sensitivity to DPA of an AES S-Box. <i>3D Research</i> , <b>2014</b> , 5, 1	2.4	
31	An Algorithm to Generating Inverse S-box for Rijndael Encryption Standard. <i>3D Research</i> , <b>2014</b> , 5, 1	2.4	2
30	Stego Optical Encryption Based on Chaotic Baker's Map Transformation. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2014</b> , 69, 249-253	1.4	2
29	Analyses of S-Box in Image Encryption Applications Based on Fuzzy Decision Making Criterion. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2014</b> , 69, 207-214	1.4	3
28	An extended image encryption using chaotic coupled map and S-box transformation. <i>Nonlinear Dynamics</i> , <b>2014</b> , 76, 1355-1363	5	55
27	An efficient scheme for digital watermarking using chaotic map. <i>Nonlinear Dynamics</i> , <b>2013</b> , 73, 1469-1474		46
26	A novel method for designing nonlinear component for block cipher based on TD-ERCS chaotic sequence. <i>Nonlinear Dynamics</i> , <b>2013</b> , 73, 633-637	5	28
25	A novel image encryption algorithm based on chaotic maps and GF(28) exponent transformation. <i>Nonlinear Dynamics</i> , <b>2013</b> , 72, 399-406	5	35
24	A group theoretic approach to construct cryptographically strong substitution boxes. <i>Neural Computing and Applications</i> , <b>2013</b> , 23, 97-104	4.8	78
23	A projective general linear group based algorithm for the construction of substitution box for block ciphers. <i>Neural Computing and Applications</i> , <b>2013</b> , 22, 1085-1093	4.8	94
22	Literature survey on nonlinear components and chaotic nonlinear components of block ciphers. <i>Nonlinear Dynamics</i> , <b>2013</b> , 74, 869-904	5	36
21	Application of S-box and chaotic map for image encryption. <i>Mathematical and Computer Modelling</i> , <b>2013</b> , 57, 2576-2579		63
20	An efficient approach for the construction of LFT S-boxes using chaotic logistic map. <i>Nonlinear Dynamics</i> , <b>2013</b> , 71, 133-140	5	64

19	Efficient method for designing chaotic S-boxes based on generalized Baker's map and TDERC chaotic sequence. <i>Nonlinear Dynamics</i> , <b>2013</b> , 74, 271-275	5	29
18	A novel approach of audio watermarking based on . <i>Mathematical and Computer Modelling</i> , <b>2013</b> , 57, 963-969		24
17	Application of Mean of Absolute Deviation Method for the Selection of Best Nonlinear Component Based on Video Encryption. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2013</b> , 68, 479-482	1.4	19
16	Substitution Box on Maximal Cyclic Subgroup of Units of a Galois Ring. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2013</b> , 68, 567-572	1.4	17
15	A new comparative study between homotopy analysis transform method and homotopy perturbation transform method on a semi infinite domain. <i>Mathematical and Computer Modelling</i> , <b>2012</b> , 55, 1143-1150		64
14	Image encryption algorithm based on PGL(2,GF(28)) S-boxes and TD-ERCS chaotic sequence. <i>Nonlinear Dynamics</i> , <b>2012</b> , 70, 181-187	5	63
13	A novel approach for designing substitution-boxes based on nonlinear chaotic algorithm. <i>Nonlinear Dynamics</i> , <b>2012</b> , 70, 1791-1794	5	66
12	A novel technique for the construction of strong S-boxes based on chaotic Lorenz systems. <i>Nonlinear Dynamics</i> , <b>2012</b> , 70, 2303-2311	5	108
11	Construction of S8 Liu J S-boxes and their applications. <i>Computers and Mathematics With Applications</i> , <b>2012</b> , 64, 2450-2458	2.7	46
10	An efficient image encryption algorithm based on S8 S-box transformation and NCA map. <i>Optics Communications</i> , <b>2012</b> , 285, 4887-4890	2	42
9	S8 affine-power-affine S-boxes and their applications. <i>Neural Computing and Applications</i> , <b>2012</b> , 21, 377-388	3.8	11
8	Generalized Majority Logic Criterion to Analyze the Statistical Strength of S-Boxes. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2012</b> , 67, 282-288	1.4	34
7	Construction of New S-Boxes Over Finite Field and Their Application to Watermarking. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2012</b> , 67, 705-710	1.4	4
6	Analysis of S-box in Image Encryption Using Root Mean Square Error Method. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , <b>2012</b> , 67, 327-332	1.4	14
5	Suppressing spiral waves with delayed asymmetric bidirectional coupling in a multi-layer biological network. <i>European Physical Journal: Special Topics</i> , 1	2.3	0
4	Critical slowing down indicators in synchronous period-doubling for salamander flicker vision. <i>European Physical Journal: Special Topics</i> , 1	2.3	2
3	A dual layer security scheme for medical images using Hessenberg and singular value decompositions. <i>Multimedia Tools and Applications</i> , 1	2.5	
2	Image encryption scheme for multi-focus images for visual sensors network. <i>Multimedia Tools and Applications</i> , 1	2.5	0

- 1 Oyster oscillator: a novel mega-stable nonlinear chaotic system. *European Physical Journal: Special Topics*,1 2.3 3