Iqtadar Hussain

List of Publications by Year
in descending order

113 papers	2,946 citations	126858 33 h-index	189801 50 g-index
114 all docs	114 docs citations	114 times ranked	1590 citing authors

#	Article	IF	Citations
1	A novel technique for the construction of strong S-boxes based on chaotic Lorenz systems. Nonlinear Dynamics, 2012, 70, 2303-2311.	2.7	139
2	A projective general linear group based algorithm for the construction of substitution box for block ciphers. Neural Computing and Applications, 2013, 22, 1085-1093.	3.2	127
3	A fractional-order model for the novel coronavirus (COVID-19) outbreak. Nonlinear Dynamics, 2020, 101, 711-718.	2.7	119
4	A group theoretic approach to construct cryptographically strong substitution boxes. Neural Computing and Applications, 2013, 23, 97-104.	3.2	104
5	A Novel Hybrid Secure Image Encryption Based on Julia Set of Fractals and 3D Lorenz Chaotic Map. Entropy, 2020, 22, 274.	1.1	91
6	Extension of TOPSIS method base on Choquet integral under interval-valued Pythagorean fuzzy environment. Journal of Intelligent and Fuzzy Systems, 2018, 34, 267-282.	0.8	89
7	A novel approach for designing substitution-boxes based on nonlinear chaotic algorithm. Nonlinear Dynamics, 2012, 70, 1791-1794.	2.7	85
8	A new comparative study between homotopy analysis transform method and homotopy perturbation transform method on a semi infinite domain. Mathematical and Computer Modelling, 2012, 55, 1143-1150.	2.0	85
9	A technique for digital steganography using chaotic maps. Nonlinear Dynamics, 2014, 75, 807-816.	2.7	80
10	An efficient approach for the construction of LFT S-boxes using chaotic logistic map. Nonlinear Dynamics, 2013, 71, 133-140.	2.7	75
11	Application of S-box and chaotic map for image encryption. Mathematical and Computer Modelling, 2013, 57, 2576-2579.	2.0	71
12	Image encryption algorithm based on PGL(2,GF(28)) S-boxes and TD-ERCS chaotic sequence. Nonlinear Dynamics, 2012, 70, 181-187.	2.7	68
13	An extended image encryption using chaotic coupled map and S-box transformation. Nonlinear Dynamics, 2014, 76, 1355-1363.	2.7	64
14	Construction of S8 Liu J S-boxes and their applications. Computers and Mathematics With Applications, 2012, 64, 2450-2458.	1.4	60
15	Synchronization and chimeras in a network of photosensitive FitzHugh–Nagumo neurons. Nonlinear Dynamics, 2021, 104, 2711-2721.	2.7	54
16	An efficient scheme for digital watermarking using chaotic map. Nonlinear Dynamics, 2013, 73, 1469-1474.	2.7	52
17	Construction of S-Box Based on Chaotic Map and Algebraic Structures. Symmetry, 2019, 11, 351.	1.1	50
18	A new oscillator with mega-stability and its Hamilton energy: Infinite coexisting hidden and self-excited attractors. Chaos, 2020, 30, 033112.	1.0	48

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19	An efficient image encryption algorithm based on S8 S-box transformation and NCA map. Optics Communications, 2012, 285, 4887-4890.	1.0	47
20	Stego optical encryption based on chaotic S-box transformation. Optics and Laser Technology, 2014, 61, 50-56.	2.2	47
21	A novel image encryption algorithm based on chaotic maps and GF(28) exponent transformation. Nonlinear Dynamics, 2013, 72, 399-406.	2.7	46
22	Literature survey on nonlinear components and chaotic nonlinear components of block ciphers. Nonlinear Dynamics, 2013, 74, 869-904.	2.7	45
23	Entropy Analysis and Image Encryption Application Based on a New Chaotic System Crossing a Cylinder. Entropy, 2019, 21, 958.	1.1	44
24	Fabrication and applications of nickel selenide. Journal of Solid State Chemistry, 2019, 277, 316-328.	1.4	44
25	Generalized Majority Logic Criterion to Analyze the Statistical Strength of S-Boxes. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2012, 67, 282-288.	0.7	43
26	Construction of chaotic quantum magnets and matrix Lorenz systems S-boxes and their applications. Chinese Journal of Physics, 2018, 56, 1609-1621.	2.0	43
27	Heat and mass transport phenomena of radiated slender body of three revolutions with saturated porous: Buongiorno's model. International Journal of Thermal Sciences, 2018, 132, 309-315.	2.6	42
28	An Encryption Scheme Based on Discrete Quantum Map and Continuous Chaotic System. International Journal of Theoretical Physics, 2020, 59, 1227-1240.	0.5	42
29	Delay-induced synchronization in two coupled chaotic memristive Hopfield neural networks. Chaos, Solitons and Fractals, 2020, 134, 109702.	2.5	38
30	Birth and death of spiral waves in a network of Hindmarsh–Rose neurons with exponential magnetic flux and excitable media. Applied Mathematics and Computation, 2019, 354, 377-384.	1.4	36
31	An algorithm for the construction of substitution box for block ciphers based on projective general linear group. AIP Advances, 2017, 7, .	0.6	35
32	A new megastable nonlinear oscillator with infinite attractors. Chaos, Solitons and Fractals, 2020, 134, 109703.	2.5	35
33	Efficient method for designing chaotic S-boxes based on generalized Baker's map and TDERC chaotic sequence. Nonlinear Dynamics, 2013, 74, 271-275.	2.7	34
34	A noise resistant symmetric key cryptosystem based on S8 S-boxes and chaotic maps. European Physical Journal Plus, 2018, 133, 1.	1.2	34
35	A novel method for designing nonlinear component for block cipher based on TD-ERCS chaotic sequence. Nonlinear Dynamics, 2013, 73, 633-637.	2.7	33
36	A image encryption algorithm based on chaotic Lorenz system and novel primitive polynomial S-boxes. Multimedia Tools and Applications, 2021, 80, 24801.	2.6	31

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37	A novel design for the construction of safe S-boxes based on TDERC sequence. AEJ - Alexandria Engineering Journal, 2015, 54, 65-69.	3.4	30
38	Copper selenide thin films from growth to applications. Solid State Sciences, 2020, 100, 106101.	1.5	30
39	A Novel Method to Identify Initial Values of Chaotic Maps in Cybersecurity. Symmetry, 2019, 11, 140.	1.1	29
40	Substitution Box on Maximal Cyclic Subgroup of Units of a Galois Ring. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2013, 68, 567-572.	0.7	28
41	A novel approach of audio watermarking based on <mml:math altimg="si5.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	2.0	27
42	A Scheme for Obtaining Secure S-Boxes Based on Chaotic Baker's Map. 3D Research, 2014, 5, 1.	1.8	27
43	Wave propagation and spiral wave formation in a Hindmarsh–Rose neuron model with fractional-order threshold memristor synaps. International Journal of Modern Physics B, 2020, 34, 2050157.	1.0	27
44	Application of Mean of Absolute Deviation Method for the Selection of Best Nonlinear Component Based on Video Encryption. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2013, 68, 479-482.	0.7	23
45	Circuit implementation of 3D chaotic self-exciting single-disk homopolar dynamo and its application in digital image confidentiality. Wireless Networks, 2020, , 1.	2.0	23
46	Extreme multi-stability analysis of a novel 5D chaotic system with hidden attractors, line equilibrium, permutation entropy and its secure communication scheme. European Physical Journal: Special Topics, 2020, 229, 1175-1188.	1.2	21
47	Analysis of S-box in Image Encryption Using Root Mean Square Error Method. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2012, 67, 327-332.	0.7	19
48	A Privacy Scheme for Digital Images Based on Quantum Particles. International Journal of Theoretical Physics, 2019, 58, 4293-4310.	0.5	19
49	A Simple Chaotic System With Topologically Different Attractors. IEEE Access, 2019, 7, 89936-89947.	2.6	19
50	Image encryption algorithm based on total shuffling scheme and chaotic S-box transformation. JVC/Journal of Vibration and Control, 2014, 20, 2133-2136.	1.5	18
51	A Robust Watermarking Scheme for Online Multimedia Copyright Protection Using New Chaotic Map. Security and Communication Networks, 2018, 2018, 1-20.	1.0	18
52	A Novel Secure Occupancy Monitoring Scheme Based on Multi-Chaos Mapping. Symmetry, 2020, 12, 350.	1.1	18
53	Oyster oscillator: a novel mega-stable nonlinear chaotic system. European Physical Journal: Special Topics, 2022, 231, 2143-2151.	1.2	18
54	Chaotic dynamics of a fractional order glucose-insulin regulatory system. Frontiers of Information Technology and Electronic Engineering, 2020, 21, 1108-1118.	1.5	17

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55	An efficient image encryption scheme based on fractal Tromino and Chebyshev polynomial. Complex & Intelligent Systems, 2021, 7, 2751-2764.	4.0	17
56	A New Chaotic System with Coexisting Attractors. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2022, 32, .	0.7	17
57	Chimera State in the Network of Fractional-Order FitzHughâ€"Nagumo Neurons. Complexity, 2021, 2021, 1-9.	0.9	15
58	A novel algorithm for thermal imageÂencryption. Journal of Integrative Neuroscience, 2018, 17, 447-461.	0.8	14
59	S8 affine-power-affine S-boxes and their applications. Neural Computing and Applications, 2012, 21, 377-383.	3.2	13
60	On Some Statistical Approximation by (p,q)-Bleimann, Butzer and Hahn Operators. Symmetry, 2018, 10, 731.	1.1	12
61	True-chaotic substitution box based on Boolean functions. European Physical Journal Plus, 2020, 135, 1.	1.2	12
62	A New Megastable Chaotic Oscillator with Blinking Oscillation terms. Complexity, 2021, 2021, 1-12.	0.9	12
63	Synthesis, characterization and biological applications of selenoureas having ferrocene and substituted benzoyl functionalities. Polyhedron, 2019, 170, 12-24.	1.0	11
64	A Simple Guide for Plotting a Proper Bifurcation Diagram. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, 2150011.	0.7	11
65	Analyses of S-boxes based on interval valued intuitionistic fuzzy sets and image encryption. International Journal of Computational Intelligence Systems, 2017, 10, 851.	1.6	11
66	Fracmemristor chaotic oscillator with multistable and antimonotonicity properties. Journal of Advanced Research, 2020, 25, 137-145.	4.4	10
67	Cryptanalysis and Improvement of Novel Image Encryption Technique Using Hybrid Method of Discrete Dynamical Chaotic Maps and Brownian Motion. Multimedia Tools and Applications, 2022, 81, 6571-6584.	2.6	10
68	An image encryption technique based on coupled map lattice and one-time S-Boxes based on complex chaotic system. Journal of Intelligent and Fuzzy Systems, 2015, 29, 1493-1500.	0.8	8
69	Optical image encryption based on S-box transformation and fractional Hartley transform. JVC/Journal of Vibration and Control, 2016, 22, 1143-1146.	1.5	8
70	Applied Cryptography and Noise Resistant Data Security. Security and Communication Networks, 2018, 2018, 1-2.	1.0	8
71	Cadmium selenide nanowires from growth to applications. Materials Research Express, 2019, 6, 122007.	0.8	8
72	A novel symmetric image cryptosystem resistant to noise perturbation based on S8 elliptic curve S-boxes and chaotic maps. European Physical Journal Plus, 2020, 135, 1.	1.2	8

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73	Simple megastable oscillators with different types of attractors; tori, chaotic and hyperchaotic ones. European Physical Journal: Special Topics, 2020, 229, 1155-1161.	1.2	8
74	Linear triangular optimization technique and pricing scheme in residential energy management systems. Results in Physics, 2018, 9, 858-865.	2.0	7
75	Critical slowing down indicators in synchronous period-doubling for salamander flicker vision. European Physical Journal: Special Topics, 2021, 230, 3291-3298.	1.2	7
76	A Noise-Tolerant Audio Encryption Framework Designed by the Application of S8 Symmetric Group and Chaotic Systems. Mathematical Problems in Engineering, 2021, 2021, 1-15.	0.6	7
77	A New Circumscribed Self-Excited Spherical Strange Attractor. Complexity, 2021, 2021, 1-8.	0.9	7
78	Image encryption scheme for multi-focus images for visual sensors network. Multimedia Tools and Applications, 2022, 81, 16353-16370.	2.6	7
79	Hidden and Self-Excited Collective Dynamics of a New Multistable Hyper-Jerk System with Unique Equilibrium. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2022, 32, .	0.7	7
80	A Novel Hybrid Secure Confidentiality Mechanism for Medical Environment Based on Kramer's Spin Principle. International Journal of Theoretical Physics, 2021, 60, 314-330.	0.5	6
81	Parameter estimation in a new chaotic memristive system using ions motion optimization. European Physical Journal: Special Topics, 2019, 228, 2133-2145.	1.2	5
82	Investigation of Early Warning Indexes in a Three-Dimensional Chaotic System with Zero Eigenvalues. Entropy, 2020, 22, 341.	1.1	5
83	New combination of simple additive and entropy weighting criteria for the selection of best substitution box. Journal of Intelligent and Fuzzy Systems, 2021, 41, 2325-2338.	0.8	5
84	A Chaotic Quadratic Bistable Hyperjerk System with Hidden Attractors and a Wide Range of Sample Entropy: Impulsive Stabilization. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	0.7	5
85	Construction of New S-Boxes Over Finite Field and Their Application to Watermarking. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2012, 67, 705-710.	0.7	4
86	Construction of Substitution Box Based on Piecewise Linear Chaotic Map and S8 Group. 3D Research, 2015, 6, 1.	1.8	4
87	Numerical Study to Coupled Three Dimensional Reaction Diffusion System. IEEE Access, 2019, 7, 46695-46705.	2.6	4
88	A new megastable chaotic oscillator with singularity. European Physical Journal: Special Topics, 2020, 229, 2341-2348.	1.2	4
89	A fractional-order ship power system: chaos and its dynamical properties. International Journal of Nonlinear Sciences and Numerical Simulation, 2021, .	0.4	4
90	Suppressing spiral waves with delayed asymmetric bidirectional coupling in a multi-layer biological network. European Physical Journal: Special Topics, 2022, 231, 921-927.	1.2	4

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91	A Simple Conservative Chaotic Oscillator with Line of Equilibria: Bifurcation Plot, Basin Analysis, and Multistability. Complexity, 2022, 2022, 1-7.	0.9	4
92	A Novel Highly Nonlinear Quadratic System: Impulsive Stabilization, Complexity Analysis, and Circuit Designing. Complexity, 2022, 2022, 1-14.	0.9	4
93	Stego Optical Encryption Based on Chaotic Baker's Map Transformation. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2014, 69, 249-253.	0.7	3
94	Analyses of S-Box in Image Encryption Applications Based on Fuzzy Decision Making Criterion. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2014, 69, 207-214.	0.7	3
95	A New Memristive Chaotic System with a Plane and Two Lines of Equilibria. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, 2150066.	0.7	3
96	Simplest symmetric chaotic flows: the strange case of asymmetry in Master Stability Function. European Physical Journal: Special Topics, 2021, 230, 1999-2010.	1.2	3
97	Pauli Half Spinning and Elliptic Curve Based Information Confidentiality Mechanism. International Journal of Theoretical Physics, 2021, 60, 3631-3650.	0.5	3
98	Various bifurcations in the development of stem cells. European Physical Journal: Special Topics, 2022, 231, 1015-1021.	1.2	3
99	A simple one-dimensional map-based model of spiking neurons with wide ranges of firing rates and complexities. Journal of Theoretical Biology, 2022, 539, 111062.	0.8	3
100	Investigating Bifurcation Points of Complex Network Synchronization. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2022, 32, .	0.7	3
101	An Algorithm to Generating Inverse S-box for Rijndael Encryption Standard. 3D Research, 2014, 5, 1.	1.8	2
102	Construction of Dynamical Non-linear Components Based on Lorenz System and Symmetric Group of Permutations. 3D Research, 2015, 6, 1.	1.8	2
103	Chimera state in a two-dimensional network of coupled genetic oscillators. Europhysics Letters, 2019, 127, 40001.	0.7	2
104	A Novel Megastable Oscillator with a Strange Structure of Coexisting Attractors: Design, Analysis, and FPGA Implementation. Complexity, 2021, 2021, 1-11.	0.9	2
105	Symmetric Oscillator: Special Features, Realization, and Combination Synchronization. Symmetry, 2021, 13, 2142.	1.1	2
106	A dual layer security scheme for medical images using Hessenberg and singular value decompositions. Multimedia Tools and Applications, 2022, 81, 14001-14022.	2.6	2
107	Chaos in a memristive oscillator with six lines of equilibria. European Physical Journal: Special Topics, 2022, 231, 3059-3065.	1.2	2
108	An Efficient Method for Secure Communication of Biometric Information Based on Chaos. 3D Research, 2015, 6, 1.	1.8	1

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109	Proposing and Dynamical Analysis of a Hyperjerk Piecewise Linear Chaotic System with Offset Boostable Variable and Hidden Attractors. Complexity, 2021, 2021, 1-11.	0.9	1
110	CGST: Provably Secure Lightweight Certificateless Group Signcryption Technique Based on Fractional Chaotic Maps. IEEE Access, 2022, 10, 39853-39863.	2.6	1
111	A New System with a Self-Excited Fully-Quadratic Strange Attractor and Its Twin Strange Repeller. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	0.7	1
112	Impact of Error Detecting or Correcting Codes on the Sensitivity to DPA of an AES S-Box. 3D Research, 2014, 5, 1.	1.8	0
113	Asymmetric Cryptosystem on Matrix Algebra over a Chain Ring. Symmetry, 2021, 13, 45.	1.1	0