

Muhammad Shoaib

List of Publications by Year in descending order

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104
papers

4,420
citations

113904

34
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150159

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111
all docs

111
docs citations

111
times ranked

1866
citing authors

#	ARTICLE	IF	CITATIONS
1	Fractional Neuro-Sequential ARFIMA-LSTM for Financial Market Forecasting. IEEE Access, 2020, 8, 71326-71338.	4.4	258
2	Numerical investigation for rotating flow of MHD hybrid nanofluid with thermal radiation over a stretching sheet. Scientific Reports, 2020, 10, 18533.	3.4	152
3	A stochastic computational intelligent solver for numerical treatment of mosquito dispersal model in a heterogeneous environment. European Physical Journal Plus, 2020, 135, 1.	2.6	129
4	A Stochastic Intelligent Computing with Neuro-Evolution Heuristics for Nonlinear Sitr System of Novel COVID-19 Dynamics. Symmetry, 2020, 12, 1628.	2.3	121
5	A stochastic numerical analysis based on hybrid NAR-RBFs networks nonlinear Sitr model for novel COVID-19 dynamics. Computer Methods and Programs in Biomedicine, 2021, 202, 105973.	4.9	118
6	Novel applications of intelligent computing paradigms for the analysis of nonlinear reactive transport model of the fluid in soft tissues and microvessels. Neural Computing and Applications, 2019, 31, 9041-9059.	5.7	115
7	Intelligent computing with Levenberg-Marquardt artificial neural networks for nonlinear system of COVID-19 epidemic model for future generation disease control. European Physical Journal Plus, 2020, 135, 932.	2.6	107
8	Numerical analysis of 3-D MHD hybrid nanofluid over a rotational disk in presence of thermal radiation with Joule heating and viscous dissipation effects using Lobatto IIIA technique. AEJ - Alexandria Engineering Journal, 2021, 60, 3605-3619.	6.7	103
9	A novel design of fractional Meyer wavelet neural networks with application to the nonlinear singular fractional Lane-Emden systems. AEJ - Alexandria Engineering Journal, 2021, 60, 2641-2659.	6.7	97
10	Ohmic heating effects and entropy generation for nanofluidic system of Ree-Eyring fluid: Intelligent computing paradigm. International Communications in Heat and Mass Transfer, 2021, 129, 105683.	5.7	94
11	Design of neuro-swarming-based heuristics to solve the third-order nonlinear multi-singular Emden-Fowler equation. European Physical Journal Plus, 2020, 135, 1.	2.6	91
12	Numerical Computing Paradigm for Investigation of Micropolar Nanofluid Flow Between Parallel Plates System with Impact of Electrical MHD and Hall Current. Arabian Journal for Science and Engineering, 2021, 46, 645-662.	3.1	90
13	Neuro-swarm intelligent computing to solve the second-order singular functional differential model. European Physical Journal Plus, 2020, 135, 1.	2.6	89
14	Design of Neural Network With Levenberg-Marquardt and Bayesian Regularization Backpropagation for Solving Pantograph Delay Differential Equations. IEEE Access, 2020, 8, 137918-137933.	4.4	87
15	FMNEICS: fractional Meyer neuro-evolution-based intelligent computing solver for doubly singular multi-fractional order Lane-Emden system. Computational and Applied Mathematics, 2020, 39, 1.	2.2	85
16	A study of changes in temperature profile of porous fin model using cuckoo search algorithm. AEJ - Alexandria Engineering Journal, 2020, 59, 11-24.	6.7	81
17	Integrated neuro-evolution-based computing solver for dynamics of nonlinear corneal shape model numerically. Neural Computing and Applications, 2021, 33, 5753-5769.	5.7	80
18	A Neuro-Swarming Intelligence-Based Computing for Second Order Singular Periodic Non-linear Boundary Value Problems. Frontiers in Physics, 2020, 8, .	2.2	74

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19	Data-driven prognosis method using hybrid deep recurrent neural network. Applied Soft Computing Journal, 2020, 93, 106351.	7.4	74
20	Neuro-swarm intelligent computing paradigm for nonlinear HIV infection model with CD4+ T-cells. Mathematics and Computers in Simulation, 2021, 188, 241-253.	4.6	71
21	Atorvastatin-loaded solid lipid nanoparticles as eye drops: proposed treatment option for age-related macular degeneration (AMD). Drug Delivery and Translational Research, 2020, 10, 919-944.	6.0	68
22	Integrated intelligent computing with neuro-swarming solver for multi-singular fourth-order nonlinear Emdenâ€“Fowler equation. Computational and Applied Mathematics, 2020, 39, 1.	2.2	67
23	Neuro-fuzzy modeling and prediction of summer precipitation with application to different meteorological stations. AEJ - Alexandria Engineering Journal, 2020, 59, 101-116.	6.7	66
24	Neuro-computing networks for entropy generation under the influence of MHD and thermal radiation. Surfaces and Interfaces, 2021, 25, 101243.	3.2	66
25	The design of intelligent networks for entropy generation in Ree-Eyring dissipative fluid flow system along quartic autocatalysis chemical reactions. International Communications in Heat and Mass Transfer, 2022, 133, 105971.	5.7	61
26	Integrated intelligent computing paradigm for nonlinear multi-singular third-order Emdenâ€“Fowler equation. Neural Computing and Applications, 2021, 33, 3417-3436.	5.7	56
27	Numerical Treatment for the Three-Dimensional Eyring-Powell Fluid Flow over a Stretching Sheet with Velocity Slip and Activation Energy. Advances in Mathematical Physics, 2019, 2019, 1-12.	0.8	54
28	A new heuristic computational solver for nonlinear singular Thomasâ€“Fermi system using evolutionary optimized cubic splines. European Physical Journal Plus, 2020, 135, 1.	2.6	49
29	Design of stochastic numerical solver for the solution of singular three-point second-order boundary value problems. Neural Computing and Applications, 2021, 33, 2427-2443.	5.7	49
30	Intelligent computing Levenberg Marquardt approach for entropy optimized single-phase comparative study of second grade nanofluidic system. International Communications in Heat and Mass Transfer, 2021, 127, 105544.	5.7	49
31	Design of evolutionary optimized finite difference based numerical computing for dust density model of nonlinear Van-der Pol Mathieuâ€™s oscillatory systems. Mathematics and Computers in Simulation, 2021, 181, 444-470.	4.6	47
32	A Computational Analysis of Two-Phase Casson Nanofluid Passing a Stretching Sheet Using Chemical Reactions and Gyrotactic Microorganisms. Mathematical Problems in Engineering, 2019, 2019, 1-12.	1.2	44
33	Integrated meta-heuristics finite difference method for the dynamics of nonlinear unipolar electrohydrodynamic pump flow model. Applied Soft Computing Journal, 2020, 97, 106791.	7.4	43
34	Supervised neural networks learning algorithm for three dimensional hybrid nanofluid flow with radiative heat and mass fluxes. Ain Shams Engineering Journal, 2022, 13, 101573.	6.6	43
35	Numerical treatment with Lobatto IIIA technique for radiative flow of MHD hybrid nanofluid (Al ₂ O ₃ â€“Cu/H ₂ O) over a convectively heated stretchable rotating disk with velocity slip effects. AIP Advances, 2020, 10, .	1.3	41
36	Neuro-intelligent networks for Boucâ€“Wen hysteresis model for piezostage actuator. European Physical Journal Plus, 2021, 136, 1.	2.6	41

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37	Heat transfer between two porous parallel plates of steady nano fluidis with Brownian and Thermophoretic effects: A new stochastic numerical approach. International Communications in Heat and Mass Transfer, 2021, 126, 105436.	5.7	40
38	Design of intelligent computing networks for numerical treatment of thin film flow of Maxwell nanofluid over a stretched and rotating surface. Surfaces and Interfaces, 2021, 24, 101107.	3.2	39
39	Effects of Gyro-Tactic Organisms in Bio-convective Nano-material with Heat Immersion, Stratification, and Viscous Dissipation. Arabian Journal for Science and Engineering, 2021, 46, 5907-5920.	3.1	38
40	Soft computing paradigm for Ferrofluid by exponentially stretched surface in the presence of magnetic dipole and heat transfer. AEJ - Alexandria Engineering Journal, 2022, 61, 1607-1623.	6.7	37
41	Heat Transfer Impacts on Maxwell Nanofluid Flow over a Vertical Moving Surface with MHD Using Stochastic Numerical Technique via Artificial Neural Networks. Coatings, 2021, 11, 1483.	2.7	35
42	Elucidation of Adsorbate Structures and Interactions on Brønsted Acid Sites in ZSM-5 by Synchrotron X-ray Powder Diffraction. Angewandte Chemie - International Edition, 2016, 55, 5981-5984.	14.8	34
43	Neuro-intelligent mappings of hybrid hydro-nanofluid Al ₂ O ₃ -Cu-H ₂ O model in porous medium over rotating disk with viscous dissolution and Joule heating. International Journal of Hydrogen Energy, 2021, 46, 28298-28326.	7.2	33
44	Intelligent Backpropagation Networks with Bayesian Regularization for Mathematical Models of Environmental Economic Systems. Sustainability, 2021, 13, 9537.	3.3	33
45	A Levenberg-Marquardt Backpropagation Neural Network for the Numerical Treatment of Squeezing Flow With Heat Transfer Model. IEEE Access, 2020, 8, 227340-227348.	4.4	32
46	Intelligent computing through neural networks for numerical treatment of non-Newtonian wire coating analysis model. Scientific Reports, 2021, 11, 9072.	3.4	31
47	Design of Backpropagated Intelligent Networks for Nonlinear Second-Order Lane-Emden Pantograph Delay Differential Systems. Arabian Journal for Science and Engineering, 2022, 47, 1197-1210.	3.1	31
48	A novel design of Gaussian Wavelet Neural Networks for nonlinear Falkner-Skan systems in fluid dynamics. Chinese Journal of Physics, 2021, 72, 386-402.	4.0	31
49	Integrated intelligent computing application for effectiveness of Au nanoparticles coated over MWCNTs with velocity slip in curved channel peristaltic flow. Scientific Reports, 2021, 11, 22550.	3.4	31
50	Intelligent computing through neural networks for entropy generation in MHD third-grade nanofluid under chemical reaction and viscous dissipation. Waves in Random and Complex Media, 0, , 1-25.	2.7	31
51	Heat transfer analysis of biological nanofluid flow through ductus efferentes. AIP Advances, 2020, 10, .	1.3	29
52	Stochastic numerical computing with Levenberg-Marquardt backpropagation for performance analysis of heat Sink of functionally graded material of the porous fin. Surfaces and Interfaces, 2021, 26, 101403.	3.2	29
53	FMNSICS: Fractional Meyer neuro-swarm intelligent computing solver for nonlinear fractional Lane-Emden systems. Neural Computing and Applications, 2022, 34, 4193-4206.	5.7	29
54	MHD Casson Nanofluid in Darcy-Forchheimer Porous Medium in the Presence of Heat Source and Arrhenious Activation Energy: Applications of Neural Networks. International Journal of Modelling and Simulation, 2023, 43, 438-461.	3.4	29

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55	Integrated neuro-evolution heuristic with sequential quadratic programming for second-order prediction differential models. <i>Numerical Methods for Partial Differential Equations</i> , 2024, 40, .	3.7	28
56	Asymmetries between partners and the success of university-industry research collaborations. <i>Research Policy</i> , 2021, 50, 104356.	6.8	28
57	Artificial intelligence knacks-based stochastic paradigm to study the dynamics of plant virus propagation model with impact of seasonality and delays. <i>European Physical Journal Plus</i> , 2022, 137, 144.	2.6	28
58	Computational intelligence approach using Levenberg-Marquardt backpropagation neural networks to solve the fourth-order nonlinear system of Emden-Fowler model. <i>Engineering With Computers</i> , 2022, 38, 2975-2991.	5.8	27
59	Numerical Treatment for Darcy-Forchheimer Flow of Sisko Nanomaterial with Nonlinear Thermal Radiation by Lobatto IIIA Technique. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-15.	1.2	25
60	The improved thermal efficiency of Prandtl-Eyring hybrid nanofluid via classical Keller box technique. <i>Scientific Reports</i> , 2021, 11, 23535.	3.4	25
61	Intelligent Computing with Levenberg-Marquardt Backpropagation Neural Networks for Third-Grade Nanofluid Over a Stretched Sheet with Convective Conditions. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 8211-8229.	3.1	23
62	Numerical investigation of thin-film flow over a rotating disk subject to the heat source and nonlinear radiation: Lobatto IIIA approach. <i>Waves in Random and Complex Media</i> , 0, , 1-15.	2.7	23
63	Neuro-Computing for Hall Current and MHD Effects on the Flow of Micro-Polar Nano-Fluid Between Two Parallel Rotating Plates. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 16371-16391.	3.1	23
64	MHD Hybrid Nanofluid Flow Due to Rotating Disk with Heat Absorption and Thermal Slip Effects: An Application of Intelligent Computing. <i>Coatings</i> , 2021, 11, 1554.	2.7	21
65	Backpropagated Intelligent Networks for the Entropy Generation and Joule Heating in Hydromagnetic Nanomaterial Rheology Over Surface with Variable Thickness. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 7753-7777.	3.1	20
66	Hall effect on MHD Jeffrey fluid flow with Cattaneo-Christov heat flux model: an application of stochastic neural computing. <i>Complex & Intelligent Systems</i> , 2022, 8, 5177-5201.	6.5	20
67	A Novel Design of Three-Dimensional MHD Flow of Second-Grade Fluid past a Porous Plate. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-11.	1.2	19
68	Levenberg-Marquardt Backpropagation for Numerical Treatment of Micropolar Flow in a Porous Channel with Mass Injection. <i>Complexity</i> , 2021, 2021, 1-12.	1.7	19
69	A novel application of Lobatto IIIA solver for numerical treatment of mixed convection nanofluidic model. <i>Scientific Reports</i> , 2021, 11, 4452.	3.4	18
70	Entropy Optimized Second Grade Fluid with MHD and Marangoni Convection Impacts: An Intelligent Neuro-Computing Paradigm. <i>Coatings</i> , 2021, 11, 1492.	2.7	18
71	Knacks of neuro-computing to study the unsteady squeezed flow of MHD carbon nanotube with entropy generation. <i>International Communications in Heat and Mass Transfer</i> , 2022, 135, 106140.	5.7	18
72	Numerical treatment for three-dimensional rotating flow of carbon nanotubes with Darcy-Forchheimer medium by the Lobatto IIIA technique. <i>AIP Advances</i> , 2020, 10, .	1.3	17

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73	Optimization through the Levenberg–Marquardt Backpropagation Method for a Magneto hydrodynamic Squeezing Flow System. <i>Coatings</i> , 2021, 11, 779.	2.7	17
74	Numerical Simulations of Vaccination and Wolbachia on Dengue Transmission Dynamics in the Nonlinear Model. <i>IEEE Access</i> , 2022, 10, 31116-31144.	4.4	17
75	Further analysis of double-diffusive flow of nanofluid through a porous medium situated on an inclined plane: AI-based Levenberg–Marquardt scheme with backpropagated neural network. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2022, 44, 1.	1.7	17
76	A design of predictive computational network for transmission model of Lassa fever in Nigeria. <i>Results in Physics</i> , 2022, 39, 105713.	4.2	17
77	MHD and heat transfer analyses of a fluid flow through scraped surface heat exchanger by analytical solver. <i>AIP Advances</i> , 2019, 9, .	1.3	16
78	Design of Spline–Evolutionary Computing Paradigm for Nonlinear Thin Film Flow Model. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 9279-9299.	3.1	16
79	The intelligent networks for double-diffusion and MHD analysis of thin film flow over a stretched surface. <i>Scientific Reports</i> , 2021, 11, 19239.	3.4	16
80	The effect of orography and surface albedo on stratification in the summertime Saharan boundary layer: Dynamics and implications for dust transport. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	15
81	A novel mathematical modeling with solution for movement of fluid through ciliary caused metachronal waves in a channel. <i>Scientific Reports</i> , 2021, 11, 20601.	3.4	15
82	Numerical analysis of Cattaneo–Christov heat flux model over magnetic couple stress Casson nanofluid flow by Lavenberg–Marquard backpropagated neural networks. <i>Waves in Random and Complex Media</i> , 0, , 1-28.	2.7	15
83	Analysis of MHD and heat transfer effects with variable viscosity through ductus efferentes. <i>AIP Advances</i> , 2019, 9, 085320.	1.3	14
84	Design of backpropagation networks for bioconvection model in transverse transportation of rheological fluid involving Lorentz force interaction and gyrotactic microorganisms. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 121, 276-291.	5.3	14
85	Extraction of binary black hole gravitational wave signals from detector data using deep learning. <i>Physical Review D</i> , 2021, 104, .	4.8	14
86	Design of Gudermannian Neuroswarming to solve the singular Emden–Fowler nonlinear model numerically. <i>Nonlinear Dynamics</i> , 2021, 106, 3199-3214.	5.3	14
87	MHD Boundary Layer Flow over a Stretching Sheet: A New Stochastic Method. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-26.	1.2	13
88	Fractional Analysis of MHD Boundary Layer Flow over a Stretching Sheet in Porous Medium: A New Stochastic Method. <i>Journal of Function Spaces</i> , 2021, 2021, 1-19.	0.9	13
89	Design of evolutionary cubic spline intelligent solver for nonlinear Painlevé-I transcendent. <i>International Journal of Modern Physics B</i> , 2021, 35, .	1.9	11
90	Endoscopy applications for the second law analysis in hydromagnetic peristaltic nanomaterial rheology. <i>Scientific Reports</i> , 2022, 12, 1580.	3.4	11

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91	Dynamics of inclined magnetic field effects on micropolar Casson fluid with Lobatto IIIA numerical solver. <i>AIP Advances</i> , 2020, 10, .	1.3	10
92	Intelligent networks knacks for numerical treatment of nonlinear multi-delays SVEIR epidemic systems with vaccination. <i>International Journal of Modern Physics B</i> , 2022, 36, .	1.9	10
93	Supervised Learning Algorithm to Study the Magnetohydrodynamic Flow of a Third Grade Fluid for the Analysis of Wire Coating. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 7505-7518.	3.1	8
94	Study of 3-D Prandtl Nanofluid Flow over a Convectively Heated Sheet: A Stochastic Intelligent Technique. <i>Coatings</i> , 2022, 12, 24.	2.7	8
95	Thin film flow of carreau nanofluid over a stretching surface with magnetic field: Numerical treatment with intelligent computing paradigm. <i>International Journal of Modern Physics B</i> , 2022, 36, .	1.9	7
96	Design of backpropagated neurocomputing paradigm for Stuxnet virus dynamics in control infrastructure. <i>Neural Computing and Applications</i> , 2022, 34, 5771-5790.	5.7	6
97	Tratamiento antifúngico individualizado en el paciente crónico con infección fúngica invasora. <i>Revista Iberoamericana De Micología</i> , 2021, 38, 68-74.	1.0	5
98	Intelligent computing technique based supervised learning for squeezing flow model. <i>Scientific Reports</i> , 2021, 11, 19597.	3.4	5
99	A novel design of a sixth-order nonlinear modeling for solving engineering phenomena based on neuro intelligence algorithm. <i>Engineering With Computers</i> , 0, , 1.	5.8	5
100	Intelligent networks knacks for numerical treatment of three-dimensional Darcy–Forchheimer Williamson nanofluid model past a stretching surface. <i>Waves in Random and Complex Media</i> , 0, , 1-29.	2.7	5
101	LmTraceMap: A <i>Listeria monocytogenes</i> fast-tracing platform for global surveillance. <i>PLoS ONE</i> , 2022, 17, e0267972.	2.5	5
102	A stochastic intelligent approach for entropy optimized mixed convective second-order slip flow over a movable surface. <i>Archive of Applied Mechanics</i> , 0, , .	2.2	1
103	Flow of magnetized nanomaterials through movable parallel plates with Lorentz forces: an intelligent computing application. <i>Waves in Random and Complex Media</i> , 0, , 1-22.	2.7	1
104	The use of spectroscopy methods for structural analysis of CVD diamond films, polycrystalline and single-crystal diamonds. <i>MATEC Web of Conferences</i> , 2021, 336, 01013.	0.2	0