Nehad Ali Shah

List of Publications by Citations

126 papers	1,517 citations	20 h-index	32 g-index
137 ext. papers	2,264 ext. citations	3.1 avg, IF	5.86 L-index

#	Paper	IF	Citations
126	Heat transfer analysis in a second grade fluid over and oscillating vertical plate using fractional Caputo–Fabrizio derivatives. *European Physical Journal C*, **2016**, 76, 1	4.2	112
125	Scrutinization of the effects of Grashof number on the flow of different fluids driven by convection over various surfaces. *Journal of Molecular Liquids*, **2018**, 249, 980-990	6	101
124	Significance of suction and dual stretching on the dynamics of various hybrid nanofluids: Comparative analysis between type I and type II models. *Physica Scripta*, **2020**, 95, 095205	2.6	59
123	Effects of the fractional order and magnetic field on the blood flow in cylindrical domains. *Journal of Magnetism and Magnetic Materials*, **2016**, 409, 10-19	2.8	55
122	Significance of Lorentz Force and Thermoelectric on the Flow of 29 nm CuO–Water Nanofluid on an Upper Horizontal Surface of a Paraboloid of Revolution. *Journal of Heat Transfer*, **2019**, 141,	1.8	51
121	Free convection flow of nanofluids between two vertical plates with damped thermal flux. *Journal of Molecular Liquids*, **2019**, 289, 110964	6	49
120	Heat transfer analysis of fractional second-grade fluid subject to Newtonian heating with Caputo and Caputo-Fabrizio fractional derivatives: A comparison. *European Physical Journal Plus*, **2017**, 132, 1	3.1	46
119	Ternary-hybrid nanofluids: significance of suction and dual-stretching on three-dimensional flow of water conveying nanoparticles with various shapes and densities. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2021**, 76, 231-243	1.4	37
118	Convective flows of generalized time-nonlocal nanofluids through a vertical rectangular channel. *Physics of Fluids*, **2018**, 30, 052002	4.4	37
117	Significance of nanoparticle's radius, heat flux due to concentration gradient, and mass flux due to temperature gradient: The case of Water conveying copper nanoparticles. *Scientific Reports*, **2021**, 11, 1882	4.9	37
116	Influence of time-fractional derivatives on the boundary layer flow of Maxwell fluids. *Chinese Journal of Physics*, **2017**, 55, 1340-1351	3.5	35
115	Hemodynamic Characteristics of Gold Nanoparticle Blood Flow Through a Tapered Stenosed Vessel with Variable Nanofluid Viscosity. *BioNanoScience*, **2019**, 9, 245-255	3.4	35
114	Significance of haphazard motion and thermal migration of alumina and copper nanoparticles across the dynamics of water and ethylene glycol on a convectively heated surface. *Case Studies in Thermal Engineering*, **2021**, 26, 101050	5.6	33
113	Maxwell fluid flow between vertical plates with damped shear and thermal flux: Free convection. *Chinese Journal of Physics*, **2020**, 65, 367-376	3.5	32
112	Applications of non-integer Caputo time fractional derivatives to natural convection flow subject to arbitrary velocity and Newtonian heating. *Neural Computing and Applications*, **2018**, 30, 1589-1599	4.8	27
111	Significance of buoyancy and Lorentz forces on water-conveying iron(III) oxide and silver nanoparticles in a rectangular cavity mounted with two heated fins: heat transfer analysis. *Journal of Thermal Analysis and Calorimetry*, **2021**, 144, 2369	4.1	27
110	Natural convection with damped thermal flux in a vertical circular cylinder. *Chinese Journal of Physics*, **2018**, 56, 630-644	3.5	26

109	Numerical study of bio-convection flow of magneto-cross nanofluid containing gyrotactic microorganisms with activation energy. *Scientific Reports*, **2021**, 11, 16030	4.9	23
108	Further Discussion on the Significance of Quartic Autocatalysis on the Dynamics of Water Conveying 47 nm Alumina and 29 nm Cupric Nanoparticles. *Arabian Journal for Science and Engineering*, **2020**, 45, 5977-6004	2.5	22
107	Dynamics of radiative-reactive Walters-b fluid due to mixed convection conveying gyrotactic microorganisms, tiny particles experience haphazard motion, thermo-migration, and Lorentz force. *Physica Scripta*,	2.6	22
106	Analysis of free convection flow of viscous fluid with damped thermal and mass fluxes. *Chinese Journal of Physics*, **2019**, 60, 98-106	3.5	20
105	A scientific report on heat transfer analysis in mixed convection flow of Maxwell fluid over an oscillating vertical plate. *Scientific Reports*, **2017**, 7, 40147	4.9	18
104	General solution for MHD-free convection flow over a vertical plate with ramped wall temperature and chemical reaction. *Arabian Journal of Mathematics*, **2018**, 7, 49-60	0.8	18
103	Natural convection flows of Prabhakar-like fractional Maxwell fluids with generalized thermal transport. *Journal of Thermal Analysis and Calorimetry*, **2021**, 143, 2245-2258	4.1	17
102	Exploration of bioconvection flow of MHD thixotropic nanofluid past a vertical surface coexisting with both nanoparticles and gyrotactic microorganisms. *Scientific Reports*, **2021**, 11, 16627	4.9	17
101	Numerical solutions of the partial differential equations for investigating the significance of partial slip due to lateral velocity and viscous dissipation: The case of blood-gold Carreau nanofluid and dusty fluid. *Numerical Methods for Partial Differential Equations*,	2.5	17
100	Analysis of magnetohydrodynamic flow of a fractional viscous fluid through a porous medium. *Chinese Journal of Physics*, **2018**, 56, 261-269	3.5	16
99	Hydromagnetic free convection flow of viscous fluid between vertical parallel plates with damped thermal and mass fluxes. *AEJ - Alexandria Engineering Journal*, **2019**, 58, 989-1000	6.1	16
98	Effects of double stratification and heat flux damping on convective flows over a vertical cylinder. *Chinese Journal of Physics*, **2019**, 60, 290-306	3.5	15
97	Insight into the Natural Convection Flow Through a Vertical Cylinder Using Caputo Time-Fractional Derivatives. *International Journal of Applied and Computational Mathematics*, **2018**, 4, 1	1.3	15
96	Influence of magnetic field on double convection problem of fractional viscous fluid over an exponentially moving vertical plate: New trends of Caputo time-fractional derivative model. *Advances in Mechanical Engineering*, **2019**, 11, 168781401986038	1.2	15
95	Natural convection flow of second grade fluid with thermal radiation and damped thermal flux between vertical channels. *AEJ - Alexandria Engineering Journal*, **2019**, 58, 1119-1125	6.1	15
94	Analysis of Optical Solitons for Nonlinear Schrödinger Equation with Detuning Term by Iterative Transform Method. *Symmetry*, **2020**, 12, 1850	2.7	15
93	Exact solutions for some unsteady flows of a couple stress fluid between parallel plates. *Ain Shams Engineering Journal*, **2018**, 9, 985-992	4.4	14
92	Effects of fractional derivative and heat source/sink on MHD free convection flow of nanofluids in a vertical cylinder: A generalized Fourier's law model. *Case Studies in Thermal Engineering*, **2021**, 28, 101518	5.6	14

91	Analytical Investigation of Fractional-Order Korteweg-De-Vries-Type Equations under Atangana-Baleanu-Caputo Operator: Modeling Nonlinear Waves in a Plasma and Fluid. *Symmetry*, **2022**, 14, 739	2.7	14
90	Fractional System of Korteweg-De Vries Equations via Elzaki Transform. *Mathematics*, **2021**, 9, 673	2.3	13
89	A Comparative Analysis of Fractional-Order Kaup-Kupershmidt Equation within Different Operators. *Symmetry*, **2022**, 14, 986	2.7	13
88	Effects of Dufour and fractional derivative on unsteady natural convection flow over an infinite vertical plate with constant heat and mass fluxes. *Computational and Applied Mathematics*, **2018**, 37, 4931-4943		12
87	Some New Versions of Hermite-Hadamard Integral Inequalities in Fuzzy Fractional Calculus for Generalized Pre-Invex Functions via Fuzzy-Interval-Valued Settings. *Fractal and Fractional*, **2022**, 6, 83	3	12
86	Numerical investigation of EMHD nanofluid flows over a convectively heated riga pattern positioned horizontally in a Darcy-Forchheimer porous medium: application of passive control strategy and generalized transfer laws. *Waves in Random and Complex Media*,1-20	1.9	12
85	Numerical Investigation of Time-Fractional Equivalent Width Equations That Describe Hydromagnetic Waves. *Symmetry*, **2021**, 13, 418	2.7	11
84	Radiated magnetic flow in a suspension of ferrous nanoparticles over a cone with brownian motion and thermophoresis. *Case Studies in Thermal Engineering*, **2021**, 25, 100915	5.6	11
83	Natural convection of bio-nanofluid between two vertical parallel plates with damped shear and thermal flux. *Journal of Molecular Liquids*, **2019**, 296, 111575	6	10
82	Free convection flows over a vertical plate that applies shear stress to a fractional viscous fluid. *AEJ - Alexandria Engineering Journal*, **2018**, 57, 2529-2540	6.1	10
81	A Decomposition Method for a Fractional-Order Multi-Dimensional Telegraph Equation via the Elzaki Transform. *Symmetry*, **2021**, 13, 8	2.7	10
80	Double diffusive MHD convective flows of a viscous fluid under influence of the inclined magnetic field, source/sink and chemical reaction. *AEJ - Alexandria Engineering Journal*, **2020**, 59, 4171-4181	6.1	10
79	MHD Hybrid Nanofluid Mixed Convection Heat Transfer and Entropy Generation in a 3-D Triangular Porous Cavity with Zigzag Wall and Rotating Cylinder. *Mathematics*, **2022**, 10, 769	2.3	10
78	A thermal optimization throughan innovative mechanism of free convection flow of Jeffrey fluid using non-local kernel. *Case Studies in Thermal Engineering*, **2021**, 24, 100851	5.6	9
77	Advances in transport phenomena with nanoparticles and generalized thermal process for vertical plate. *Physica Scripta*, **2021**, 96, 114001	2.6	9
76	Natural convection flows of carbon nanotubes nanofluids with Prabhakar-like thermal transport. *Mathematical Methods in the Applied Sciences*, **2020**,	2.3	8
75	Natural convection heat transfer in an oscillating vertical cylinder. *PLoS ONE*, **2018**, 13, e0188656	3.7	8
74	Electro-osmotic flow of biological fluid in divergent channel: drug therapy in compressed capillaries. *Scientific Reports*, **2021**, 11, 23652	4.9	8

73	Thermal analysis of free convection flows of viscous carbon nanotubes nanofluids with generalized thermal transport: a Prabhakar fractional model. *Journal of Thermal Analysis and Calorimetry*, **2021**, 144, 2327	4.1	8
72	Thermodynamic activity of a ternary nanofluid flow passing through a permeable slipped surface with heat source and sink. *Waves in Random and Complex Media*,1-21	1.9	8
71	Two-Dimensional Advection□Diffusion Process with Memory and Concentrated Source. *Symmetry*, **2019**, 11, 879	2.7	7
70	Heat transfer enhancement in natural convection flow of nanofluid with Cattaneo thermal transport. *Physica Scripta*, **2020**, 95, 115705	2.6	7
69	Analysis of Dendrimer Generation by Sombor Indices. *Journal of Chemistry*, **2021**, 2021, 1-11	2.3	7
68	Two phase flow of blood through a circular tube with magnetic properties. *Journal of Magnetism and Magnetic Materials*, **2019**, 477, 382-387	2.8	7
67	An efficient approach for solution of fractional-order Helmholtz equations. *Advances in Difference Equations*, **2021**, 2021,	3.6	7
66	Two-layer flows of generalized immiscible second grade fluids in a rectangular channel. *Mathematical Methods in the Applied Sciences*, **2020**, 43, 1337-1348	2.3	6
65	Thermography of ferromagnetic Walter's-B fluid through varying thermal stratification. *South African Journal of Chemical Engineering*, **2021**, 36, 118-126	3.2	6
64	Significance of Reynolds number, lower and upper rotating disks on the dynamics of water conveying graphene and silver nanoparticles between rotating disks. *Physica Scripta*, **2021**, 96, 045218	2.6	6
63	Natural convection flow maxwell fluids with generalized thermal transport and newtonian heating. *Case Studies in Thermal Engineering*, **2021**, 27, 101226	5.6	6
62	Fractional Analysis of Coupled Burgers Equations within Yang Caputo-Fabrizio Operator. *Journal of Function Spaces*, **2022**, 2022, 1-13	0.8	6
61	First general solutions for unsteady unidirectional motions of rate type fluids in cylindrical domains. *AEJ - Alexandria Engineering Journal*, **2018**, 57, 1185-1196	6.1	5
60	A generalized kinetic model of the advection-dispersion process□n a sorbing medium. *Mathematical Modelling of Natural Phenomena*,	3	5
59	Natural convection flows and heat transfer with exponential memory of a Maxwell fluid with damped shear stress. *Computers and Mathematics With Applications*, **2018**, 76, 2246-2261	2.7	5
58	A COMPARATIVE STUDY OF SEMI-ANALYTICAL METHODS FOR SOLVING FRACTIONAL-ORDER CAUCHY REACTION□DIFFUSION EQUATION. *Fractals*, **2021**, 29, 2150143	3.2	5
57	An Efficient Technique of Fractional-Order Physical Models Involving □Laplace Transform. *Mathematics*, **2022**, 10, 816	2.3	5
56	Magneto-hydrodynamics natural convection flows of viscous carbon nanotubes nanofluids with generalized Fourier's law in a vertical cylinder. *Mathematical Methods in the Applied Sciences*, **2020**,	2.3	4

55	Analysis of Natural Convection Bionanofluid Between Two Vertical Parallel Plates. *BioNanoScience*, **2019**, 9, 930-936	3.4	4
54	Brownian motion and thermophoretic diffusion effects on the dynamics of MHD Upper Convected Maxwellnanofluid flow past a vertical surface. *Physica Scripta*,	2.6	4
53	Natural convection flows of carbon nanotube Prabhakar-like fractional second-grade nanofluids over an infinite plate with Newtonian heating. *Mathematical Methods in the Applied Sciences*, **2020**,	2.3	4
52	Analytical Analysis of Fractional-Order Multi-Dimensional Dispersive Partial Differential Equations. *Symmetry*, **2021**, 13, 939	2.7	4
51	Analytical solutions to the advection-diffusion equation with Atangana-Baleanu time-fractional derivative and a concentrated loading. *AEJ - Alexandria Engineering Journal*, **2021**, 60, 1199-1208	6.1	4
50	Dual solution framework for mixed convection flow of Maxwell nanofluid instigated by exponentially shrinking surface with thermal radiation. *Scientific Reports*, **2021**, 11, 15944	4.9	4
49	The Variational Iteration Transform Method for Solving the Time-Fractional Fornberg Whitham Equation and Comparison with Decomposition Transform Method. *Mathematics*, **2021**, 9, 141	2.3	4
48	Analytic simulation of thermophoretic second grade fluid flow past a vertical surface with variable fluid characteristics and convective heating.. *Scientific Reports*, **2022**, 12, 5445	4.9	4
47	Melting and entropy generation of infinite shear rate viscosity Carreau model over Riga plate with erratic thickness: a numerical Keller Box approach. *Waves in Random and Complex Media*,1-25	1.9	4
46	The New Semianalytical Technique for the Solution of Fractional-Order Navier-Stokes Equation. *Journal of Function Spaces*, **2021**, 2021, 1-13	0.8	3
45	Study of Magnetohydrodynamic Pulsatile Blood Flow through an Inclined Porous Cylindrical Tube with Generalized Time-Nonlocal Shear Stress. *Advances in Mathematical Physics*, **2021**, 2021, 1-11	1.1	3
44	Thermal analysis through cylindrical porous fin having insulated tip: a hybrid nanomaterial approach. *Physica Scripta*, **2021**, 96, 094014	2.6	3
43	Memory effects and of the killing rate on the tumor cells concentration for a one-dimensional cancer model. *Chaos, Solitons and Fractals*, **2021**, 144, 110750	9.3	3
42	Strong Convergence of a New Hybrid Iterative Scheme for Nonexpensive Mappings and Applications. *Journal of Function Spaces*, **2022**, 2022, 1-11	0.8	3
41	3D Flow of Hybrid Nanomaterial through a Circular Cylinder: Saddle and Nodal Point Aspects. *Mathematics*, **2022**, 10, 1185	2.3	3
40	On some rotational flows of non-integer order rate type fluids with shear stress on the boundary. *Ain Shams Engineering Journal*, **2018**, 9, 1865-1876	4.4	2
39	Induced magnetic field and viscous dissipation on flows of two immiscible fluids in a rectangular channel.. *Scientific Reports*, **2022**, 12, 39	4.9	2
38	Unsteady two-dimensional flow of pseudo-blood fluid in an arterial duct carrying stenosis. *Physica A: Statistical Mechanics and Its Applications*, **2020**, 550, 124126	3.3	2

37	An Analytical View of Fractional-Order Fisher Type Equations within Caputo Operator. *Mathematical Problems in Engineering*, **2021**, 2021, 1-10	1.1	2
36	Numerical Analysis of Time-Fractional Diffusion Equations via a Novel Approach. *Journal of Function Spaces*, **2021**, 2021, 1-12	0.8	2
35	Analytical Solutions of the Fractional Mathematical Model for the Concentration of Tumor Cells for Constant Killing Rate. *Mathematics*, **2021**, 9, 1156	2.3	2
34	The analytical solution of fractional-order WhithamBroerKaup equations by an Elzaki decomposition method. *Numerical Methods for Partial Differential Equations*,	2.5	2
33	The Analysis of Fractional-Order KerstenKrasil Shchik Coupled KdV System, via a New Integral Transform. *Symmetry*, **2021**, 13, 1592	2.7	2
32	Entropy optimized dissipative flow of hybrid nanofluid in the presence of non-linear thermal radiation and Joule heating. *Scientific Reports*, **2021**, 11, 16067	4.9	2
31	Marangoni Convection of Dust Particles in the Boundary Layer of Maxwell Nanofluids with Varying Surface Tension and Viscosity. *Coatings*, **2021**, 11, 1072	2.9	2
30	A renovated ScottBlair model for heat and mass transfer analysis. *Waves in Random and Complex Media*,1-15	1.9	2
29	Applications of bioconvection for tiny particles due to two concentric cylinders when role of Lorentz force is significant.. *PLoS ONE*, **2022**, 17, e0265026	3.7	2
28	Novel Analytical Technique to Find Closed Form Solutions of Time Fractional Partial Differential Equations. *Fractal and Fractional*, **2022**, 6, 24	3	1
27	Impact of entropy optimized Darcy-Forchheimer flow in MnZnFe2O4 and NiZnFe2O4 hybrid nanofluid towards a curved surface. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*,e202100194	1	1
26	MHD-free convection flow of CNTs differential type nanofluid over an infinite vertical plate with first-order chemical reaction, porous medium, and suction/injection. *Mathematical Methods in the Applied Sciences*, **2020**,	2.3	1
25	Weber-Type Integral Transform Connected with Robin-Type Boundary Conditions. *Mathematics*, **2020**, 8, 1335	2.3	1
24	Simultaneous Flow of n-Immiscible Fractional Maxwell Fluids with Generalized Thermal Flux and Robin Boundary Conditions. *Advances in Mathematical Physics*, **2021**, 2021, 1-20	1.1	1
23	Combination of Shehu decomposition and variational iteration transform methods for solving fractional third order dispersive partial differential equations. *Numerical Methods for Partial Differential Equations*,	2.5	1
22	Study of one-dimensional contaminant transport in soils using fractional calculus. *Mathematical Methods in the Applied Sciences*, **2021**, 44, 6839-6856	2.3	1
21	Unsteady free convective magnetohydrodynamics flow of a Casson fluid through a channel with double diffusion and ramp temperature and concentration. *Mathematical Methods in the Applied Sciences*,	2.3	1
20	Generalized Exp-Function Method to Find Closed Form Solutions of Nonlinear Dispersive Modified BenjaminBonaMahony Equation Defined by Seismic Sea Waves. *Mathematics*, **2022**, 10, 1026	2.3	1

19	Numerical Approaches of the Generalized Time-Fractional Burgers Equation with Time-Variable Coefficients. *Journal of Function Spaces*, **2021**, 2021, 1-14	0.8	1
18	Mathematical Simulation of Heat Transfer in Thermally Magnetised Oldroyd-B Fluid in Sakiadis Rheology with a Heat Reservoir. *Mathematics*, **2022**, 10, 1775	2.3	1
17	Modelling Entropy in Magnetized Flow of Eyring Powell Nanofluid through Nonlinear Stretching Surface with Chemical Reaction: A Finite Element Method Approach. *Nanomaterials*, **2022**, 12, 1811	5.4	1
16	Dynamics of ferromagnetic due to nonlinear thermal buoyancy when Cattaneo Christov heat flux and magnetic dipole whose magnetic scalars are significant. *Waves in Random and Complex Media*,1-20	1.9	0
15	Analytical Solutions of the Diffusion Wave Equation of Groundwater Flow with Distributed-Order of Atangana Baleanu Fractional Derivative. *Applied Sciences (Switzerland)*, **2021**, 11, 4142	2.6	0
14	A Comparative Analysis of Fractional-Order Gas Dynamics Equations via Analytical Techniques. *Mathematics*, **2021**, 9, 1735	2.3	0
13	New idea of Atangana-Baleanu time-fractional derivative to advection-diffusion equation. *Mathematical Methods in the Applied Sciences*, **2021**, 44, 2521-2531	2.3	0
12	ANALYSIS OF TIME-FRACTIONAL BURGERS AND DIFFUSION EQUATIONS BY USING MODIFIED q-HATM. *Fractals*,2240012	3.2	0
11	Modified Exp-Function Method to Find Exact Solutions of Ionic Currents along Microtubules. *Mathematics*, **2022**, 10, 851	2.3	0
10	Simulation of Dissipative Hybrid Nanofluid (PEG-Water + ZrO2 + MgO) Flow by a Curved Shrinking Sheet with Thermal Radiation and Higher Order Chemical Reaction. *Mathematics*, **2022**, 10, 1706	2.3	0
9	Radio Labeling for Strong Product K3 ? Pn. *IEEE Access*, **2020**, 8, 109801-109806	3.5	
8	A Comparison Study of Irregularity Descriptors of Benzene Ring Embedded in P-Type Surface Network and Its Derived Network. *Journal of Mathematics*, **2021**, 2021, 1-12	1.2	
7	Numerical Analysis of the Klein-Gordon Equations by Using the New Iteration Transform Method. *Journal of Function Spaces*, **2021**, 2021, 1-9	0.8	
6	A Comparative Study of the Fractional-Order System of Burgers Equations. *Symmetry*, **2021**, 13, 1786	2.7	
5	Analytical Fuzzy Analysis of a Fractional-Order Newell-Whitehead-Segel Model with Mittag-Leffler Kernel. *Journal of Function Spaces*, **2022**, 2022, 1-12	0.8	
4	Novel Evaluation of Fuzzy Fractional Cauchy Reaction-Diffusion Equation. *Journal of Function Spaces*, **2022**, 2022, 1-10	0.8	
3	Hardy Leindler, Yang and Hwang Inequalities for Functions of Several Variables via Time Scale Calculus. *Symmetry*, **2022**, 14, 802	2.7	
2	On implementation of a semi-analytic strategy to develop an analytical solution of a steady-state isothermal tube drawing model.. *Scientific Reports*, **2022**, 12, 7636	4.9	

1	Fractional-View Analysis of Jaulent-Miodek Equation via Novel Analytical Techniques. *Journal of Function Spaces*, **2022**, 2022, 1-11	0.8