

Dr R PONALAGUSAMY

List of Publications by Year in descending order

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76
papers

1,143
citations

516710

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81
docs citations

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#	ARTICLE	IF	CITATIONS
1	Pulsatile Flow of EMHD Micropolar Hybrid Nanofluid in a Porous Bifurcated Artery With an Overlapping Stenosis in the Presence of Body Acceleration and Joule Heating. Brazilian Journal of Physics, 2022, 52, 1.	1.4	8
2	Modeling of pulsatile EMHD flow of non-Newtonian blood with magnetic particles in a tapered stenosed tube: a comparative study of actual and approximated drag force. European Physical Journal Plus, 2022, 137, 1.	2.6	8
3	Impact of Variable Viscosity, Chemical Reaction and Electro-Osmotic Mechanism on the Dispersal of solute through a Uniform Channel with Permeable walls. International Journal of Applied and Computational Mathematics, 2022, 8, 1.	1.6	1
4	Effect of electro-magneto-hemodynamic environs on dispersion of solute in the peristaltic motion through a channel with chemical reaction, wall properties and porous medium. Korea Australia Rheology Journal, 2022, 34, 69-90.	1.7	1
5	Effects of Rheology of Non-Newtonian Fluid and Chemical Reaction on a Dispersion of a Solute and Implications to Blood Flow. International Journal of Applied and Computational Mathematics, 2022, 8, 1.	1.6	0
6	Biorheological Model on Pulsatile Flow of Blood (K ϵ L Fluid) Through Flexible Stenotic Tapered Blood Vessels. International Journal of Applied and Computational Mathematics, 2021, 7, 1.	1.6	5
7	Mathematical study on two-fluid model for flow of K ϵ L fluid in a stenosed artery with porous wall. SN Applied Sciences, 2021, 3, 1.	2.9	5
8	Analysis of MHD pulsatile flow of Jeffrey fluid in a diseased inclined tapered porous artery exposed to an inclined magnetic field. Journal of Physics: Conference Series, 2021, 1850, 012039.	0.4	2
9	Modeling of pulsatile EMHD flow of Au-blood in an inclined porous tapered atherosclerotic vessel under periodic body acceleration. Archive of Applied Mechanics, 2021, 91, 3421-3447.	2.2	17
10	Electromagnetic control of non-Newtonian fluid (blood) suspended with magnetic nanoparticles in the tapered constricted inclined tube. AIP Conference Proceedings, 2021, , .	0.4	4
11	Influence of Electromagnetic Field and Thermal Radiation on Pulsatile Blood Flow with Nanoparticles in a Constricted Porous Artery. International Journal of Applied and Computational Mathematics, 2021, 7, 1.	1.6	8
12	A study on two-layered (K.L-Newtonian) model of blood flow in an artery with six types of mild stenoses. Applied Mathematics and Computation, 2020, 367, 124767.	2.2	6
13	The effects of double-diffusion and viscous dissipation on the oscillatory convection in a viscoelastic fluid saturated porous layer. Physics of Fluids, 2020, 32, .	4.0	19
14	Mathematical model on magneto-hydrodynamic dispersion in a porous medium under the influence of bulk chemical reaction. Korea Australia Rheology Journal, 2020, 32, 287-299.	1.7	13
15	Effects of magnetic force and non-Newtonian characteristics on squeeze film bearings. Asia-Pacific Journal of Chemical Engineering, 2020, 15, e2510.	1.5	1
16	Particle-fluid two phase modeling of electro-magneto hydrodynamic pulsatile flow of Jeffrey fluid in a constricted tube under periodic body acceleration. European Journal of Mechanics, B/Fluids, 2020, 81, 76-92.	2.5	18
17	Mathematical modeling of electro hydrodynamic non-Newtonian fluid flow through tapered arterial stenosis with periodic body acceleration and applied magnetic field. Applied Mathematics and Computation, 2019, 362, 124453.	2.2	16
18	Effects of slip and magnetic field on the pulsatile flow of a Jeffrey fluid with magnetic nanoparticles in a stenosed artery. European Physical Journal Plus, 2019, 134, 1.	2.6	12

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19	A four-layered model for flow of non-Newtonian fluid in an artery with mild stenosis. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2019, 44, 1.	1.3	7
20	A Numerical Study on Unsteady Flow of Herschel-Bulkley Nanofluid Through an Inclined Artery with Body Acceleration and Magnetic Field. <i>International Journal of Applied and Computational Mathematics</i> , 2019, 5, 1.	1.6	4
21	A numerical model on pulsatile flow of magnetic nanoparticles as drug carrier suspended in Herschel-Bulkley fluid through an arterial stenosis under external magnetic field and body force. <i>International Journal of Computer Mathematics</i> , 2019, 96, 1763-1786.	1.8	7
22	Mathematical modelling for pulsatile flow of Casson fluid along with magnetic nanoparticles in a stenosed artery under external magnetic field and body acceleration. <i>Neural Computing and Applications</i> , 2019, 31, 813-826.	5.6	19
23	An unsteady flow of magnetic nanoparticles as drug carrier suspended in micropolar fluid through a porous tapered arterial stenosis under non-uniform magnetic field and periodic body acceleration. <i>Computational and Applied Mathematics</i> , 2018, 37, 4259-4280.	1.3	5
24	Pulsatile MHD flow of a Casson fluid through a porous bifurcated arterial stenosis under periodic body acceleration. <i>Applied Mathematics and Computation</i> , 2018, 333, 325-343.	2.2	14
25	Numerical investigation on two-fluid model (micropolar-Newtonian) for pulsatile flow of blood in a tapered arterial stenosis with radially variable magnetic field and core fluid viscosity. <i>Computational and Applied Mathematics</i> , 2018, 37, 719-743.	1.3	18
26	Mathematical analysis of flow of non-Newtonian fluid due to metachronal beating of cilia in a tube and its physiological applications. <i>Applied Mathematics and Computation</i> , 2018, 337, 545-561.	2.2	11
27	Two-Fluid Model for Blood Flow Through a Tapered Arterial Stenosis: Effect of Non-zero Couple Stress Boundary Condition at the Interface. <i>International Journal of Applied and Computational Mathematics</i> , 2017, 3, 807-824.	1.6	5
28	Nonlinear model on pulsatile flow of blood through a porous bifurcated arterial stenosis in the presence of magnetic field and periodic body acceleration. <i>Computer Methods and Programs in Biomedicine</i> , 2017, 142, 31-41.	4.7	6
29	A two-layered suspension (particle-fluid) model for non-Newtonian fluid flow in a catheterized arterial stenosis with slip condition at the wall of stenosed artery. <i>Korea Australia Rheology Journal</i> , 2017, 29, 87-100.	1.7	9
30	Computational model on pulsatile flow of blood through a tapered arterial stenosis with radially variable viscosity and magnetic field. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2017, 42, 1901-1913.	1.3	15
31	COUPLE STRESS FLUID MODEL FOR PULSATILE FLOW OF BLOOD IN A POROUS TAPERED ARTERIAL STENOSIS UNDER MAGNETIC FIELD AND PERIODIC BODY ACCELERATION. <i>Journal of Mechanics in Medicine and Biology</i> , 2017, 17, 1750109.	0.7	6
32	Numerical modelling on pulsatile flow of Casson nanofluid through an inclined artery with stenosis and tapering under the influence of magnetic field and periodic body acceleration. <i>Korea Australia Rheology Journal</i> , 2017, 29, 303-316.	1.7	13
33	A NEW FIFTH-ORDER WEIGHTED RUNGE-KUTTA ALGORITHM BASED ON HERONIAN MEAN FOR INITIAL VALUE PROBLEMS IN ORDINARY DIFFERENTIAL EQUATIONS. <i>Journal of Applied Mathematics & Informatics</i> , 2017, 35, 191-204.	0.1	3
34	Suspension model for blood flow through a catheterized arterial stenosis with peripheral layer of plasma free from cells. <i>European Physical Journal Plus</i> , 2016, 131, 1.	2.6	3
35	Particulate suspension Jeffrey fluid flow in a stenosed artery with a particle-free plasma layer near the wall. <i>Korea Australia Rheology Journal</i> , 2016, 28, 217-227.	1.7	14
36	Biorheological Model on Flow of Herschel-Bulkley Fluid through a Tapered Arterial Stenosis with Dilatation. <i>Applied Bionics and Biomechanics</i> , 2015, 2015, 1-12.	1.1	21

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37	Role of hybrid reinforcement on microstructural observation, characterization and consolidation behavior of AA 6061 nanocomposite. <i>Advanced Powder Technology</i> , 2015, 26, 1171-1182.	4.1	8
38	A Parallel Fourth Order Rosenbrock Method: Construction, Analysis and Numerical Comparison. <i>International Journal of Applied and Computational Mathematics</i> , 2015, 1, 45-68.	1.6	1
39	Microstructural observation, consolidation and mechanical behaviour of AA 6061 nanocomposites reinforced by Al_2O_3 nanoparticles. <i>Advanced Powder Technology</i> , 2015, 26, 139-148.	4.1	40
40	Influence of magnetic field and heat transfer on two-phase fluid model for oscillatory blood flow in an arterial stenosis. <i>Meccanica</i> , 2015, 50, 927-943.	2.0	35
41	Biological Study on Pulsatile Flow of Herschel-Bulkley Fluid in Tapered Blood Vessels. , 2015, , 39-50.		3
42	Statistical evaluation of forming limit diagram for annealed Al 1350 alloy sheets using first order reliability method. <i>Applied Mathematical Modelling</i> , 2014, 38, 145-167.	4.2	6
43	A complete ranking of incomplete interval information. <i>Expert Systems With Applications</i> , 2014, 41, 1947-1954.	7.6	23
44	The effects of various reinforcements on dry sliding wear behaviour of AA 6061 nanocomposites. <i>Materials & Design</i> , 2014, 64, 783-793.	5.1	58
45	Blood flow in stenosed arteries with radially variable viscosity, peripheral plasma layer thickness and magnetic field. <i>Meccanica</i> , 2013, 48, 2427-2438.	2.0	44
46	DNA algorithm employing temperature gradient for Freeze-Tag Problem in swarm robotics. <i>Transactions of the Institute of Measurement and Control</i> , 2012, 34, 278-290.	1.7	5
47	Mathematical analysis on effect of non-Newtonian behavior of blood on optimal geometry of microvascular bifurcation system. <i>Journal of the Franklin Institute</i> , 2012, 349, 2861-2874.	3.4	25
48	Mathematical model of pulsatile flow of non-Newtonian fluid in tubes of varying cross-sections and its implications to blood flow. <i>Journal of the Franklin Institute</i> , 2012, 349, 1681-1698.	3.4	29
49	Sheet metals forming limit stress and strain prediction based on new generalised yield criterion. <i>International Journal of Computational Materials Science and Surface Engineering</i> , 2011, 4, 311.	0.2	0
50	A study on two-layered model (Casson-Newtonian) for blood flow through an arterial stenosis: Axially variable slip velocity at the wall. <i>Journal of the Franklin Institute</i> , 2011, 348, 2308-2321.	3.4	36
51	A new fourth order embedded RKAHeM(4,4) method with error control on multilayer raster cellular neural network. <i>Signal, Image and Video Processing</i> , 2009, 3, 1-11.	2.7	9
52	A new method of embedded fourth order with four stages to study raster CNN simulation. <i>International Journal of Automation and Computing</i> , 2009, 6, 285-294.	4.5	8
53	A novel generalized design methodology and realization of Boolean operations using DNA. <i>BioSystems</i> , 2009, 97, 146-153.	2.0	12
54	Computer-aided metal flow investigation in streamlined extrusion dies. <i>Materials & Design</i> , 2008, 29, 1228-1239.	5.1	3

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55	The effect of strain rate sensitivity on theoretical prediction of limiting draw ratio for cylindrical cup drawing process. <i>Materials & Design</i> , 2008, 29, 884-890.	5.1	17
56	Finite difference method for analysis of open-die forging of sintered cylindrical billets. <i>Materials & Design</i> , 2008, 29, 1886-1892.	5.1	4
57	A Novel Generalized Model for Constructing Reusable and Reliable Logic Gates Using DNA. , 2008, , .		6
58	A Comparison of RK-Fourth Orders of Variety of Means on Multilayer Raster CNN Simulation. <i>Trends in Applied Sciences Research</i> , 2008, 3, 242-252.	0.4	6
59	Prediction of limit strains in sheet metals by using new generalized yield criteria. <i>Materials & Design</i> , 2007, 28, 913-920.	5.1	5
60	A CONSTANT-TIME SELECTION ALGORITHM ON AN LARPBS. , 2007, , .		0
61	ANALYSIS OF MEDICAL IMAGE COMPRESSION USING STATISTICAL CODING METHODS. , 2007, , .		3
62	A Parallel Solution for the Unconstrained Maximum Elements Problem. , 2006, , .		1
63	Parallel algorithms for robot path planning with simpler VLSI architecture. <i>International Journal of Computer Applications in Technology</i> , 2006, 26, 157.	0.5	4
64	An upper bound solution to extrusion of circular billet to circular shape through cosine dies. <i>Materials & Design</i> , 2006, 27, 411-415.	5.1	29
65	Design and development of streamlined extrusion dies a Bezier curve approach. <i>Journal of Materials Processing Technology</i> , 2005, 161, 375-380.	6.3	34
66	Generalised yield criteria of porous sintered powder metallurgy metals. <i>Journal of Materials Processing Technology</i> , 2001, 110, 182-185.	6.3	41
67	Uniaxial tensile behaviour of ZM-21 magnesium alloy at room temperature. <i>Journal of Materials Processing Technology</i> , 2000, 102, 56-58.	6.3	8
68	A mathematical theory of plasticity for the upsetting of compressible P/M materials. <i>Journal of Materials Processing Technology</i> , 2000, 97, 107-109.	6.3	12
69	A mathematical theory of plasticity for compressible powder metallurgy materials " Part II. <i>Journal of Materials Processing Technology</i> , 2000, 97, 110-113.	6.3	8
70	A study on barrelling in magnesium alloy solid cylinders during cold upset forming. <i>Journal of Materials Processing Technology</i> , 2000, 101, 64-69.	6.3	15
71	A mathematical theory of plasticity for compressible powder metallurgy materials " Part III. <i>Journal of Materials Processing Technology</i> , 2000, 100, 262-265.	6.3	6
72	A mathematical theory of plasticity for compressible P/M materials. <i>Journal of Materials Processing Technology</i> , 1999, 86, 159-162.	6.3	4

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73	NUMERICAL STUDY ON STEADY STATE THREE-DIMENSIONAL ATMOSPHERIC DIFFUSION OF SULFUR DIOXIDE AND SULFATE DISPERSION WITH NON-LINEAR KINETICS. International Journal of Computational Fluid Dynamics, 1993, 1, 339-349.	1.2	3
74	Pulsatile flow of Casson's fluid through stenosed arteries with applications to blood flow. Biorheology, 1986, 23, 499-511.	0.4	140
75	A study of non-newtonian aspects of blood flow through stenosed arteries and its applications in arterial diseases. Biorheology, 1985, 22, 521-531.	0.4	125
76	Dispersion of a Solute in Blood Flowing Through Narrow Arteries with Homogeneous First-order Chemical Reaction. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 0, , 1.	1.2	1