

### Details of Publications –2023-24

Publications: Web of Science/ Scopus/UGC Care

S. No	Title	Authors	Department	Journal, Volume and No.	Year	Impact factor	ISSN
1	Subordination of Cesaro means of convex functions	Manju Yadav, Sushma Gupta and Sukhjit Singh	Mathematics	Bulletin of Malaysian Math. Sci. Soc, 46, article no. 48, page 1-17.	2023	IF 1.2	0126-6705
2	Linear combinations of univalent harmonic mappings with complex coefficients	Deepali Khurana, Raj Kumar Garg, Sushma Gupta and Sukhjit Singh	Mathematics	Math. Vesnik, 74,3 , 189-196.	2022	IF 0.8	0025-5165
3	On a question of Bhatia, Friedland and Jain II	Mandeep, Yogesh Kapil and Mandeep Singh	Mathematics	Linear and Multilinear Algebra, DOI 10.1080/03081087.2023.2209269	2023	IF 1.1	0308-1087
4	An extension for matrices of Young's inequality	Anju Rani, Yogesh Kapil and Mandeep Singh	Mathematics	Adv. Oper. Theory 8, 45	2023	IF 0.8	2662-2009
5	Piecewise Symmetric Magic Cube: Application to Text Cryptography	Narbda Rani, Vinod Mishra and Birmohan Singh	Mathematics	Multimedia Tools and Applications ,82, 19369-19391	2023	IF 3.6	1573-7721
6	Image Encryption Model based on Novel Magic Square with Differential Encoding and Chaotic Map	Narbda Rani, Vinod Mishra and Suvita Rani Sharma,	Mathematics	Nonlinear Dynamics (Springer), 111, 2869-2893	2023	IF 5.6	1573-269X
7	Ways of Constructing Multiplicative Magic Cubes	Narbda Rani and Vinod Mishra	Mathematics	Springer Proceedings in Mathematics and Statistics (Springer) 410, 79-86 (FIAM 2021)	2023	SJR, 0.221	2194-1017
8	Study of 4th order Kuramoto-Sivashinsky equation by septic Hermite collocation method	Archna Kumari and VK Kukreja	Mathematics	Applied Numerical Mathematics, 188, 88-105	2023	IF 2.8	0168-9274
9	Solution of generalized regularized long-wave equation with optimal spline collocation	Shallu & VK Kukreja	Mathematics	International Journal of Computer Mathematics, 100(1), 1-19,	2023	IF 1.8	0020-7160

	technique and implicit Crank-Nicolson as well as explicit SSP-RK43 scheme						
10	Shishkin mesh based septic Hermite interpolation algorithm for time-dependent singularly perturbed convection–diffusion models	Archna Kumari and VK Kukreja	Mathematics	Journal of Mathematical Chemistry, 60(10), 2029-2053	2022	IF 1.7	0259-9791
11	An optimal B-spline collocation technique for numerical simulation of viscous coupled Burgers' equation	Shallu and VK Kukreja	Mathematics	Computational Methods for Differential Equations, 10(4), 1027-1045	2022	Scopus	2345-3982
12	An improvised collocation algorithm to solve generalized Burgers'-Huxley equation, Springer,	Shallu and VK Kukreja,	Mathematics	Arabian Journal of Mathematics, 11(20), 379-396	2022	IF1.2	2193-5351
13	Solution of dual boundary layer singular perturbation problem by septic Hermite collocation technique	Archna Kumari, Shallu and VK Kukreja	Mathematics	International Journal of Applied & Computational Mathematics, 8(5), 226(1-17)	2022	Scopus	2349-5103
14	A simple yet efficient two-step fifth-order weighted-Newton method for nonlinear models	H Singh, JR Sharma, S Kumar	Mathematics	Numerical Algorithms, 93, 203-225	2022	IF 3.041	1017-1398
15	Higher order Traub–Steffensen type methods and their convergence analysis in Banach spaces	D Kumar, JR Sharma, H Singh	Mathematics	International Journal of Nonlinear Sciences & Numerical Simulation, <a href="https://doi.org/10.1515/ijnsns-2021-0202">https://doi.org/10.1515/ijnsns-2021-0202</a>	2022	IF 2.007	1565-1339
16	Semilocal convergence analysis of an efficient Steffensen-type fourth order method	JR Sharma, IK Argyros, H. Singh	Mathematics	Journal of Analysis, 31, 1573-1586	2022	IF 0.8	0971-3611
17	Extended convergence analysis of optimal eighth order method for solving nonlinear equations	IK Argyros, JR Sharma, H Singh,	Mathematics	Annales Univ. Sci. Budapest, Sect. Comp., 53, 109–122	2022	--	--

18	A Computationally Efficient Sixth-Order Method for Nonlinear Models	J.R. Sharma, H. Singh	Mathematics	Springer Proceedings in Mathematics & Statistics, 410, 567-585	2023	IF 0.23	2194-1017
19	Simple and efficient fifth order solvers for systems of nonlinear problems	H Singh, JR Sharma	Mathematics	Mathematical Modelling and Analysis, 22 (1), 1-22	2023	IF 1.8	1392-6292
20	Simple yet highly efficient numerical techniques for systems of nonlinear equations	H Singh, JR Sharma	Mathematics	Computational and Applied Mathematics, 42:22 <a href="https://doi.org/10.1007/s40314-022-02159-9">https://doi.org/10.1007/s40314-022-02159-9</a>	2023	IF 2.6	1807-0302
21	Extended comparison between two Newton-Jarratt sixth order schemes for nonlinear models under the same set of conditions	JR Sharma, S Kumar, IK Argyros, C.I. Argyros	Mathematics	Applicationes Mathematicae, DOI: 10.4064/am2437-2-2023	2023	IF 0.36	1730-6280
22	Numerical Solution of Nonlinear Problems with Multiple Roots Using Derivative-Free Algorithms	S. Kumar, J.R. Sharma, J. Bhagwan, Lorentz Jantchi	Mathematics	Symmetry, 15, 1249. Doi:10.3390/sym15061249	2023	IF 2.7	2073-8994
23	A fractional Traub-Steffensen-type method for solving nonlinear equations	H Singh, J.R. Sharma	Mathematics	Numerical Algorithms, <a href="https://doi.org/10.1007/s11075-023-01601-1">https://doi.org/10.1007/s11075-023-01601-1</a>	2023	IF 3.041	1017-1398
24	Generalized convergence conditions for the local and semilocal analyses of higher order Newton-type iterations	H Singh, J.R. Sharma	Mathematics	Computational and Applied Mathematics <a href="https://doi.org/10.1007/s40314-023-02480-x">https://doi.org/10.1007/s40314-023-02480-x</a>	2023	IF 2.6	1807-0302
25	Certain Investigation on Bulk Viscous String Models of the Universe with BVDP	R.K. Mishra and Heena Dua	Mathematics	Bulg. J. Phys. vol.50 no.2 (2023), pp. 095-114, doi: <a href="https://doi.org/10.55318/bjgp.2023.50.2.095">https://doi.org/10.55318/bjgp.2023.50.2.095</a>	2023	UGC CARE	1314-2666
26	Investigation on Behavior of Deceleration Parameter with LRS Bianchi Type-I Cosmological Models	R.K. Mishra and Heena	Mathematics	Indian J Phys 97, 993–1006 (2023). <a href="https://doi.org/10.1007/s12648-022-02412-1">https://doi.org/10.1007/s12648-022-02412-1</a>	2022	SCIE 2.36	0973-1458

27	Cosmological model with variable parameters	Navya Jain, Heena Dua, and R.K. Mishra	Mathematics	Journal of Physics: Conference series (IOP)	2023 (To appear)	SJR /SCOPUS IF-0.183	1742-6596
28	Cosmological model in $f(R,T)$ theory with time-varying FLVDP	Rahul Sharma, Avtar Chand, and R.K. Mishra	Mathematics	Journal of Physics: Conference series (IOP)	2023 (To appear)	SJR /SCOPUS IF-0.183	1742-6596

D Full Paper in International conferences								
	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Title of proceedings	Affiliating Institute
1	Study of complex dynamics of some iterative techniques for computing multiple roots	S. Kumar, D. Kumar, J.R. Sharma, R. Kumar	Mathematics	AIP Conference Proceedings	2022	1551-7616	Frontier of Industrial and Applied Mathematics	NIT Hamirpur
2	Magic Squares in Indian Mathematics: Constructions and Properties	Vinod Mishra and Narbda Rani	Mathematics	Bloomsbury Publishing, U.K.	2022	978-93-54358-94-4	Understanding Values and Ethics in Shrinking World	Central University of Rajasthan
3	Application of Magic Squares in Cryptography	Narbda Rani and Vinod Mishra	Mathematics	Proceedings in Adaptation, Learning and Optimization (Springer Book Series)	2022	2363-6092	International conference on Intelligent Vision and Computing	Sur University College Oman
4	A Computationally Efficient Sixth-Order Method for	J.R. Sharma, H. Singh	Mathematics	Springer Proceedings in Mathematics	2023	2194-1017	Frontier of Industrial and Applied	SLIET

	Nonlinear Models			& Statistics, 410, 567-585			Mathematics	
5	Ways of Constructing Multiplicative Magic Cubes	Narbda Rani and Vinod Mishra	Mathematics	Springer Proceedings in Mathematics & Statistics	2023	2194-1017	Frontier of Industrial and Applied Mathematics	SLIET
E: Full Paper in National conferences								
	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Title of proceedings	Affiliating Institute
1	Fibonacci Sequence: History and Modern Applications	Vinod Mishra	Mathematics	National Mission for Manuscripts and DK Print world (P) Ltd, New Delhi	2022	978-93-80829-70-8	History and Development of Mathematics in India (Procee dings of CHDM Conference, Kanchipuram 2018	