

## 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	Polylogarithms and subordination of some cubic polynomials.	Manju Yadav, Sushma Gupta and Sukhjit Singh	Mathematics	Kyungpook J. Mathemtaics, 64(1), page 57-68.	2024	IF 0.6	0454-8124
2	Construction of univalent harmonic mappings and their convolutions	Chinu Singla, Sushma Gupta and Sukhjit Singh	Mathematics	Math. Vesnik, doi:10.57016/MV-GJWE5662	2023	IF 0.4	0025-5165
3	Generalized (k,t)-Narayana Sequence	Roji Bala and Vinod Mishra	Mathematics	Journal of the Indonesian Mathematical Society, 30(1), 121–138	2024	IF 0.33	2460-0245
4	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	IF1.7	1572-9265
5	Three-Step Derivative-Free Method of Order Six	S. Kumar, J.R. Sharma, I.K. Argyros, S. Regmi	Mathematics	Foundations, 3, 573–588.	2023	-	2673-9321
6	Seventh Order Derivative-Free Methods for Non-differentiable Operator Equations	S. Kumar, J.R. Sharma, I.K. Argyros, S. Regmi	Mathematics	Eur. J. Math. Anal. 3 (2023) 24	2023	-	2733-3957
7	An efficient class of Traub-Steffensen-type optimal order multiple root solvers	H. Singh, J.R. Sharma	Mathematics	Numerical Algorithms <a href="https://doi.org/10.1007/s11075-023-01683-x">https://doi.org/10.1007/s11075-023-01683-x</a>	2023	IF 1.7	1572-9265
8	Generalized convergence conditions for the local and semilocal analyses of higher order Newton-type iterations	H. Singh, J.R. Sharma	Mathematics	Computational and Applied Mathematics42, 334	2023	IF 2.5	1807-0302

9	Multi-step methods for equations	S. Kumar, J.R. Sharma, I.K. Argyros	Mathematics	ANNALI DELL'UNIVERSITA' DI FERRARA <a href="https://doi.org/10.1007/s11565-024-00489-6">https://doi.org/10.1007/s11565-024-00489-6</a>	2024	IF 1.33	1827-1510
10	<u>A Harmonic-Type Method for Nonlinear Equations in Banach Space</u>	S. Kumar, J.R. Sharma, I.K. Argyros, S. Regmi	Mathematics	Contemporary Mathematics 5 (3)	2024	IF 0.6	2705-1056
11	<u>Optimal Fourth-Order Methods for Multiple Zeros: Design, Convergence Analysis and Applications</u>	S. Kumar, J.R. Sharma, Lorentz Jantchi	Mathematics	Axioms 13, 143. <a href="https://doi.org/10.3390/axioms13030143">https://doi.org/10.3390/axioms13030143</a>	2024	IF 1.9	2075-1680
12	Development and analysis of an efficient Jacobian-free method for systems of nonlinear equations	J.R. Sharma, H. Singh, S. Kumar	Mathematics	Mathematical Modelling and Analysis, In press	2024	IF 1.6	1648-3510
13	A two-point Newton-like method of optimal fourth order convergence for systems of nonlinear equations	H. Singh, J.R. Sharma	Mathematics	Journal of Complexity <a href="https://doi.org/10.1016/j.jco.2024.101907">https://doi.org/10.1016/j.jco.2024.101907</a>	2024	IF 1.8	1090-2708
14	Fractional Quadratic Deceleration Parameter (FQDP): Observational and theoretical perspectives	R.K. Mishra and Navya Jain	Mathematics	Romanian Journal of Physics, 69(104)	2024	1.6	0035-4090 (p)
15	Cosmic acceleration & deceleration with $f(R, T)$ gravity	R.K. Mishra and Rahul Sharma	Mathematics	Modern Physics Letters A, 39(11)	2024	1.5	0217-7323 (p)
16	Dynamics of the universe with variable parameters that govern the gravitational interactions	R.K. Mishra and Navya Jain	Mathematics	General Relativity and Gravitation, 56(2)	2024	2.8	0001-7701 (p)

17	Cosmic dynamics beyond Einstein theory: Mathematical analysis with $f(R, T)$ gravity	R.K. Mishra and Navya Jain	Mathematics	International Journal of Theoretical Physics, 63(1)	2024	1.4	0020-7748(p)
18	An Innovation Diffusion Model in Partial Competitive and Cooperative Market: Analysis with Two Innovations.	S. Chugh, R.K. Guha and Joydip Dhar	Mathematics	Journal of Pure and Applied Mathematics, Vol.4 (2022), No.1 – 2, pp. 27 – 36.	2022	Peer Reviewed	2671-4000 (p) 2636-1612 (e)
19	An Innovation Diffusion Model with Two Innovations under Two Simultaneous Effects in a Competitive Market: Co-Existence through Optimal Control.	S. Chugh, Joydip Dhar and R.K. Guha,	Mathematics	Journal of Mathematics and Computer Science, Vol. 35(1), 1-15	2024	Web of Science and Scopus. I.F – 2.0	2008-949X (Online)
20	Stability and optimal control of two products innovation diffusion system.	S. Chugh, Joydip Dhar and Rangan K. Guha,	Mathematics	Results in Control and Optimization, Vol.14 , 100344	2024	Scopus Cite Score 3.0	2666-7207
21	Survey of Hermite interpolating polynomials for the solution of differential equations	Archna Kumari & VK Kukreja	Mathematics	Mathematics 11(14), 3157	2023	2.3	2227 7390
22	Study of generalized regularized long wave equation via septic Hermite collocation method with Crank–Nicolson and SSP-RK43 schemes to capture the various solitons	Archna Kumari & VK Kukreja	Mathematics	Wave Motion 122(2):103188	2023	2.1	0165 2125
23	Study of 4 <sup>th</sup> order Kuramoto-Sivashinsky equation by septic Hermite collocation method	Archna Kumari & VK Kukreja	Mathematics	Applied Numerical Mathematics 188, 88-105	2023	2.2	0168 9274

24	Study of eigenvalues of some matrices via dilations	Yogesh Kapil, Anju Rani and Mandeep Singh	Mathematics	Results in Mathematics 78 (6), 222	2023	IF 1.1	1422-6383
25	On a Question of Bhatia and Jain III	Yogesh Kapil, Mandeep and Mandeep Singh	Mathematics	Results in Mathematics 79 (2), 51	2023	IF 1.1	1422-6383
26	Dilations and characterisations of matrices	Anju Rani, Yogesh Kapil, Bhavna Garg and Mandeep Singh	Mathematics	Advances in Operator Theory 9 (3), 62	2024	IF 0.8	2662-2009
27	Investigation of Partially Submerged Rectangular Plate Modeshapes Through Eigenvectors in a Fluid Domain	Yogesh Verma, Sudhir Kumar	Mathematics	Journal of Vibration Engineering & Technologies <a href="https://doi.org/10.1007/s42417-024-01463-4">https://doi.org/10.1007/s42417-024-01463-4</a>	2024	IF 2.2	2523-3920

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	Cosmological model with variable parameters	Navya Jain, Heena Dua, and R.K. Mishra	Mathematics	Journal of Physics: Conference series (IOP)	2023	1742-6596	Advanced Materials & Radiation Physics (AMRP-2023)	Sant Longowal Institute of Engineering and Technology
2	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	1742-6596	Advanced Materials & Radiation Physics (AMRP-2023)	Sant Longowal Institute of Engineering and Technology