

Profile Page



Name : Dr Sukhjit Singh
Designation : Assistant Professor Grade-i
Department : Mathematics
Qualification : Ph.D. Numerical Analysis (IIT Kharagpur)
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Research Interests :

Higher order iterative methods for solving nonlinear equations

Other Profile Links :

Google Scholar Link :

Dr. Sukhjit Singh [Click Here](#)

Journal Publications :

Year	Journal	Publication
2023	Numerical Algorithms (SCI)	Kurchatov-type methods for non-differentiable Hammerstein-type integral equations
2022	International Journal of Nonlinear Sciences and Numerical Simulation (SCI)	An improvement of derivative-free point-to-point iterative processes with central divided differences
2022	Journal of Computational and Applied Mathematics (SCI) 404, 113115	A reliable treatment to solve nonlinear Fredholm integral equations with non-separable kernel
2022	Mathematical Methods in the Applied Sciences (SCI) 45, 6844-6860	An improvement of the Kurchatov method by means of a parametric modification
2021	Applied Mathematics and Computation (SCI) 409, 126385	Solving nonlinear integral equations with non-separable kernel via a high-order iterative process
2021	International Journal of Nonlinear Sciences and Numerical Simulation (SCI) 22, 267-285	Recurrence relations for a family of iterations assuming Hölder continuous second order Fréchet derivative
2020	Journal of Mathematical Analysis and Applications (SCI) 487 (2), 124008	Localization and separation of solutions for Fredholm integral equations
2020	Indian Journal of Pure and Applied Mathematics (SCI) 51 (2), 439-455	A study of the local convergence of a fifth order iterative method

2020	Mathematics and Computers in Simulation (SCI) 172, 191-212	Finite volume approximation of multidimensional aggregation population balance equation on triangular grid
2018	International Journal of Computational Methods (SCI) 15 (06), 1850048	Convergence of an iteration of fifth-order using weaker conditions on first order Fréchet derivative in Banach spaces
2018	Journal of Computational and Applied Mathematics (SCI) 330, 732-741	Semilocal convergence of a Secant-type method under weak Lipschitz conditions in Banach spaces
2017	Calcolo (SCI) 54 (2), 527-539	Local convergence of a parameter based iteration with Hölder continuous derivative in Banach spaces
2016	Mediterranean Journal of Mathematics (SCI) 13 (6), 4219-4235	Semilocal convergence analysis of an iteration of order five using recurrence relations in Banach spaces
2016	Journal of Mathematical Chemistry (SCI) 54 (7), 1370-1386	Local convergence of a family of iterative methods for Hammerstein equations
2016	Applied Mathematics and Computation (SCI) 281, 252-265	Enlarging the convergence domain in local convergence studies for iterative methods in Banach spaces
2016	Journal of Mathematical Chemistry (SCI) 54 (4), 918-931	A modified homotopy perturbation method for singular time dependent Emden–Fowler equations with boundary conditions
2016	Applied Mathematics and Computation (SCI) 276, 266-277	Semilocal and local convergence of a fifth order iteration with Fréchet derivative satisfying Hölder condition

Conference Publications :

Year	Conference	Publication
2021	XVI Congreso de Matemática Aplicada Gijón (Asturias), Spain, June 14-18, 2021	A predictor-corrector iterative scheme for improving the accessibility of the Steffensen-type methods
2020	International Conference of Numerical Analysis and Applied Mathematics, 17-23 September, Greece	Towards a unified theory of inverse free two-step point to point iterative process
2019	International Conference on Computational and Mathematical Methods in Science and Engineering CMMSE 2019 (June 30- July 6, 2019, Rota, Cádiz - Spain).	A reliable treatment to solve nonlinear Fredholm integral equations with non- separable kernel.
2017	Mathematical Modelling in Engineering & Human Behaviour	Semilocal Convergence of an efficient fifth order method under weaker conditions
2013	International Conference of Numerical on Numerical Linear Algebra and its Applications	Eigenvalues of symmetric interval matrices using a single step eigen perturbation method

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Principal Investigator		Study of Higher Order Iterative Methods for Solving Nonlinear Equations	Science and Engineering Research Board	27-02-2019	26-02-22	19,10,000	Ongoing	NA

Events Organized :

Category	Type	Title	Venue	From	To	Designation
STC	National	Numerical Solutions of Differential Equations	Department of Mathematics Dr. B. R. Ambedkar National Institute of Technology Jalandhar - 144011 - Punjab, INDIA	16-09-2020	20-09-2020	Course Coordinator

Award and Honours :

Title	Activity	Given by	Year
Research Visit (18-06-2017 to 20-07-2017)	Visiting Faculty	Universitat Politecnica de Valencia, Spain	2017
National Post-Doctoral Fellowship (NPDF)	Post-Doctoral Fellow at IIT Kanpur (not availed)	Department of Science and Technology (DST-SERB)	2017
CSIR-JRF		Council of Scientific & Industrial Research	2011
GATE -2010 (AIR-99)		Ministry of Human Resource Development (MHRD)	2010
UGC-NET		Council of Scientific & Industrial Research	2010