<u>RESUME</u>

Dr. Jai Prakash Jaiswal

B. Sc., M. Sc., Ph.D. (BHU), D. Sc.(Pursuing)
JRF (NET), GATE, SERB- DST Young Scientist
Associate Professor
Department of Pure and Applied Mathematics
Guru Ghasidas Vishwavidyalaya (Central University)
Bilaspur (C.G.)
Email: *jpbhu2007@gmail.com*
Mob.: +91-9009119349

1. Employment Details:

Position Held	Organization	Duration
Associate Professor	Guru Ghasidas Vishwavidyalaya (Central University) Bilaspur (C.G.)	June 25, 2020 to till date
Assistant Professor Grade-I	Maulana Azad National Institute of Technology (Institute of National Importance) Bhopal (M.P.)	Dec 24, 2018 to June 23, 2020
Assistant Professor	Maulana Azad National Institute of Technology (Institute of National Importance) Bhopal (M.P.)	June 30, 2010 to Dec 23, 2018
Guest Faculty	Indian Institute of Information Technology Bhopal (M.P.)	AY 2018-2019

2. Teaching Experience: More than 10 years

3. **Research Interest(s):** Numerical Methods, Numerical Analysis, Numerical Functional Analysis.

4. Fellowships/Awards: 1. UGC, Research Fellowship, 2007-2009.
2. UGC-J.R.F.(NET) Fellowship, 2009-2010.
3. DST- International Travel Support, 2012.
4. UGC-International Travel Grant, 2014.
5. DST- International Travel Support, 2015.
6. SERB-DST Young Scientist, 2016.

5. Research Publications: 1. Research papers: 54 (Published) + 2 (Accepted)
2. Conference Papers: 5 (Published)
3. Book: 1 (Published)

6. STTP/ Training Programme /Workshop/Conference Attended:
1. STTP/ Training Programme /Workshop: 28
2. Conference= 20

7. STTP/ Training Programme /Workshop/Conference Organized:
1. STTP/ Training Programme /Workshop: 04
2. Conference= 2

8. Research Guidance: 1. PG Students= 24 (completed)
2. Project Fellows= 3 (completed)
3. Ph. D. Students= 3 (awarded) +1(submitted) +2(ongoing)

9. Research Project Undertaken :1. 4.75 lacs funded by NBHM-DAE, Mumbai (completed).
2. 15.01 lacs funded by SERB-DST, New Delhi (completed).

10. Country Visited : Poland, Turkey, Greece.

11. Member of Professional Bodies : About 15 professional bodies

12. Software Skills : Latex, Matlab, Mathematica etc.

13. Language Known : Hindi, English

13. Others:
   (1)   Centre Observer for various national Level exams (offline & online both)
   (2)   Judge for NCSC Regional level, KV-2, Bhopal.
   (3)   Editorial board member of many journals
   (4)   Reviewer of many journal papers
   (5)   Derived expert lectures in many organizations.
   (6)   *Reviewer of Mathematical Review, American Mathematical Society, USA.*

I do hereby declare that the details furnished by me are true to the best of my knowledge and belief.

J. P. Jaiswal

Details of Research Publications

A. Research Papers:

(1) Kailash Yadav, **J.P. Jaiswal**: A comparative study of numerical solution of pantograph equations using various wavelets techniques, *TWMS J. App. and Eng. Math.*, accepted for publication.   (Scopus indexing)

(2) Neha Gupta, **J. P. Jaiswal**: Semilocal Convergence of Modified Chebyshev-Halley Method for Nonlinear Operators in Case of unbounded third derivative, *Numerical Analysis and Applications*, accepted for Publ.
(Scopus indexing)

(3) **J. P. Jaiswal**: Semilocal convergence and its computational efficiency of a seventh-order method in Banach spaces, *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences*, 90(2), 271-279   (Springer) (SCIE & Impact factor 0.681)

(4) Neha Gupta, **J. P. Jaiswal**: Semilocal convergence of a Seventh-order method in Banach spaces under Holder continuity condition, *The Journal of the Indian Mathematical Society*, 87, 56-69 (2020).
(Scopus indexing)

(5) Neha Gupta, **J. P. Jaiswal**: Semilocal convergence of a Seventh-order method in Banach spaces under w-continuity condition, *Surveys in Mathematics and its Applications*, 15, 325-339 (2020).(Scopus indexing)

(6) I. K. Argyros, Neha Gupta, **J. P. Jaiswal**: Extending the applicability of two-step Chord-type method for non-differentiable operators, *Mathematics*, 7, 804-810 (2019).   (SCIE indexing & Impact factor 1.105)

(7) Zhang Yong, Neha Gupta, **J. P. Jaiswal,** K. Madhu: On the Semilocal Convergence of multi-Point variant of Jarratt method in case of unbounded third derivative, *Mathematics*, 7, 540-553 (2019).
(SCIE indexing & Impact factor 1.105)

(8) Neha Gupta, **J. P. Jaiswal**: On the semilocal convergence analysis of higher order iterative method in two folds, *Int. J. Appl. Comput. Math.* (2019) 5: Article 150.   (Scopus indexing)

(9) **J. P. Jaiswal**: Semilocal convergence analysis and comparison of revisited computational efficiency of the sixth-order method in Banach spaces, *Novi Sad J. Math.* 49(2), 1-16 (2019).   (Scopus indexing)

(10) **J. P. Jaiswal,** Bhavna Panday, Neha Choubey: Analysis of semilocal convergence under W-continuity condition on second order Frechet derivative in Banach space, *Acta Mathematica Universitatis Comenianae*, LXXXVIII (2), 173-185 (2019).   (Scopus indexing)

(11) Kailash Yadav, **J. P. Jaiswal:** On the operational matrix for fractional integration and its application for solving Abel integral equation using Bernoulli wavelet, *Global Journal of Pure and Applied Mathematics*, 15(1), 81-101 (2019).   (Scopus indexing)

(12) Alicia Cordero, **J. P. Jaiswal,** J. R. Torregrosa: Stability analysis of fourth order iterative methods for finding multiple roots of nonlinear equations, *Applied Mathematics and Nonlinear Sciences*, 4(1), 43-56 (2019).

(13) Kailash Yadav**, J. P. Jaiswal**: On the Comparative study of Numerical Solution of Fourth-order Singularly, Perturbed Boundary-value Problems by Initial Value Technique and Haar Wavelets**,** *International Journal of Advances in Mathematics*, Volume 2019, Number 1, Pages 15-26 (2019).

(14) **J. P. Jaiswal,** Kailash Yadav**:** Method for Solving Lane-Emden type differential equations by coupling of wavelets and Laplace transform, *International Journal of Advances in Mathematics*, Volume 2019, Number 2, Pages 18-34 (2019).

(15) Neha Choubey, Alicia Cordero, **J. P. Jaiswal** and J. R. Torregrosa: Dynamical techniques for analyzing iterative schemes with memory, *Complexity*, Volume 2018, Article ID 1232341, 13 pages.
(SCIE & Impact factor 2.591)

(16) **J. P. Jaiswal**: Semilocal convergence of a computationally efficient eighth-order scheme in Banach spaces under w-continuity condition on third derivative, *Iran J Sci Technol Trans Sci*, 42:819–826 (2018).
(Springer) (SCIE & Impact factor 0.692)

(17) Bhavna Panday, **J. P. Jaiswal**: On the local Convergence of Modified Homeier-like Method in Banach Spaces, *Numerical Analysis and Application*, 11(4), 332-345 (2018).   (Springer) (Scopus indexing)

(18) Neha Choubey, Bhawna Panday, **J. P. Jaiswal**: Several two-point with memory methods for solving nonlinear equations, *Africa Matematica*, 29, 435-449 (2018).   (Springer) (Scopus indexing)

(19) **J. P. Jaiswal**: Analysis of Semilocal convergence in Banach spaces under relaxed continuity condition and computational efficiency, *Numerical Analysis and Applications*, 10(2), 129-139 (2017).
(Springer) (Scopus indexing)

(20) Neha Choubey, **J. P. Jaiswal**: Two-and three-point with memory methods for solving nonlinear equations, *Numerical Analysis and Applications*, 10(1), 74-89 (2017).   (Springer) (Scopus indexing)

(21) A. S. Yadav, **J. P. Jaiswal**: On extended generalized phi-recurrent trans-Sasakian manifolds, *Acta Mathematica Universitatis Comenianae*, Vol. LXXXVI, 271-277 2 (2017).   (Scopus indexing)

(22) **J. P. Jaiswal,** A. S. Yadav: On trans-Sasakian manifolds equipped with m-projective curvature tensor, *TWMS Journal of Applied and Engineering Mathematics*, 7(2), 282-290 (2017).   (Scopus indexing)

(23) Bhawna Pandey, **J. P. Jaiswal**: New seventh and eighth order derivative free methods for solving nonlinear equations", *Tbilisi Mathematical Journal*, 10(4), 103-115 (2017).   (ESCI, Web of Science)

(24) **J. P. Jaiswal**: A note on the convergence rate of Kumar-Singh-Srivastava methods for solving nonlinear equations, *Journal of the Egyptian Mathematical Society*, 25, 139-140 (2017).   (Elsevier)

(25) **J. P. Jaiswal**: Erratum "Semilocal convergence of an eighth-order method in Banach spaces and its computational efficiency", *Numerical Algorithms,* 74:639-641(2017)
                              (Springer) (SCIE & Impact factor 1.241).

(26) **J. P. Jaiswal:** Semilocal convergence of an eighth-order method in Banach spaces and its computational efficiency, *Numerical Algorithms*, 71 (4), 933-951 (2016).   (Springer) (SCIE & Impact factor 2.417)

(27) **J. P. Jaiswal:** Improved Bi-accelerator convergence derivative-free with memory family for solving nonlinear equations, *Journal of Applied Analysis and Computation*, 6(1), 196-206 (2016).
                                        (SCIE & Impact factor 1.116)

(28) Neha Choubey, **J. P. Jaiswal**: Improving the order of convergence and efficiency index of an iterative method for nonlinear systems, *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences*, (April–June 2016) 86(2):221–227.   (Springer) (SCIE & Impact factor 0.681)

(29) **J. P. Jaiswal:** An Optimal order iterative method for multiple roots in case of unknown multiplicity, *Algorithms*, 2016, *9*(1), 10-20.   (Scopus indexing)

(30) **J. P. Jaiswal,** Bhawna Pandey: Recurrence relations and semilocal convergence of a fifth-order method in Banach spaces, *International Journal of Pure and Applied Mathematics*, 108, 767-780 (2016).

(31) **J. P. Jaiswal**, Avdhesh Pandey**:** Non-existence of harmonic maps on trans-Sasakian manifolds, *Lobachevskii Journal of Mathematics*, 37(2), 185-192 (2016).   (Springer) (Scopus indexing)

(32) Neha Choubey, **J. P. Jaiswal:** An improved optimal eighth-order iterative schemes with its dynamical behavior**,** *International Journal of Computing Science and Mathematics*, 7(4), 361-370 (2016). (Scopus indexing)

(33) Anuradha Singh**, J. P. Jaiswal:** A class of optimal eighth-order Steffensen-type iterative methods for solving nonlinear equations and their basins of attraction, *Applied Mathematics and Information Sciences* 10, 251-257 (2016).   (Scopus indexing)

(34) **J. P. Jaiswal,** A. S. Yadav: On extended generalized M-projective phi-recurrent trans-Sasakian manifolds, *Facta Universitatis, Series Mathematics and Informatics*, 41(5), 1051-1060 (2016).

(35) **J. P. Jaiswal:** Two efficient bi-parametric derivative free with memory methods for finding simple roots of nonlinear equations, *Journal of Advances in Applied Mathematics*, 1(4), 203-210 (2016).

(36) **J. P. Jaiswal:** Two Bi-accelerators improved with Memory Schemes for solving Nonlinear Equations, *Discrete Dynamics in Nature and Society*, Volume 2015, Article ID 938606, 7 pages.
                              (SCIE & Impact factor 0.973).

(37) Anuradha Singh**, J. P. Jaiswal:** An efficient family of optimal fourth-order iterative methods for finding multiple roots of nonlinear equations, *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences*,(July–September2015) 85(3):439–450.   (Springer) (SCIE & Impact factor 0.681)

(38) Bhawna Pandey, **J. P. Jaiswal**, R. H. Ojha: Necessary and sufficient conditions for the Riemannian map to be a harmonic map on cosymplectic manifolds, *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences*, 85 (2), 265-268, 2015.   (Springer) (SCIE & Impact factor 0.681)

(39) Bhawna Pandey, **J. P. Jaiswal:** A New Seventh and Eighth-Order Ostrowski's Type schemes for Solving Nonlinear Equations with their dynamics, *General Mathematics Notes*, 28 (1), 1-17, 2015.

(40) Neha Choubey**, J. P. Jaiswal:** A derivative- free method of eighth- order for finding simple root of nonlinear equations, *Communication in Numerical Analysis*, Volume 2015 No. 2, 90-103.

(41) **J. P. Jaiswal:** Solving non-differentiable nonlinear equations by new Steffensen type iterative methods with memory, *Mathematical Problems in Engineering*, Volume 2014, Article ID 795628, 6 pages.
                              (SCIE & Impact factor 1.179)

(42) **J. P. Jaiswal**: Some classes of third-order and fourth-order iterative methods for solving nonlinear equations, *Journal of Applied Mathematics*, Volume 2014, Article ID 817656, 17 pages.
                              (Scopus indexing)

(43) Anuradha Singh**, J. P. Jaiswal:** An efficient family of optimal eighth-order iterative methods for solving nonlinear equations and its dynamics, *Journal of Mathematics*, Volume 2014, Article ID 569719, 14 pages.
                              (Scopus indexing)

(44) Anuradha Singh, **J. P. Jaiswal**: Several new third-order and fourth-order iterative methods for solving nonlinear equations**,** *International Journal of Engineering Mathematics*, Volume 2014, Article ID 828409, 11 pages.

(45) **J. P. Jaiswal**: A Class of Iterative Methods for Solving Nonlinear Equations with Optimal Fourth-Order Convergence, *Universal Journal of Applied Mathematics* 2(8), 283-289, 2014.

(46) **J. P. Jaiswal**: Harmonic maps on a Sasakian manifolds, *Journal of Geometry*, 104 (2013), 309–315.
                                                                                                    (Springer) (Scopus indexing)

(47) **J. P. Jaiswal**, Sunil Panday: An efficient optimal-eighth order iterative method for solving nonlinear equations, *Universal Journal of Computational Mathematics*, 1(3): 83-95 (2013).

(48) **J. P. Jaiswal**: A new third-order iterative derivative free method for solving nonlinear equations, *Universal Journal of Applied Mathematics*, 1 (2) (2013), 131-135.

(49) **J. P. Jaiswal**: On Ricci semi-symmetric and Ricci pseudo-symmetric mixed super quasi-Einstein manifolds, *Journal of Progressive sciences*, 3 (1) (2012), 50-53.

(50) **J. P. Jaiswal**: The existence of weakly symmetric and weakly Ricci-symmetric Sasakian manifolds admitting a quarter- symmetric metric connection, *Acta Mathematica Hungarica*, 132(4) (2011), 358-366.
                                                                                    (Springer) (SCIE & Impact factor 0.538)

(51) **J. P. Jaiswal**, R. H. Ojha: On generalized ϕ-recurrent Sasakian manifolds, *International Journal of Mathematical Science and Engineering Application*, 5 (2) (2011), 303-309.

(52) **J. P. Jaiswal**, R. H. Ojha: Some properties of K-Contact Riemannian manifold admitting Semi-symmetric non- metric connection, *Filomat*, 24(4) (2010), 9-16. (SCIE & Impact factor 0.789)

(53) **J. P. Jaiswal**, R. H. Ojha: A semi-symmetric non-metric ϕ -connection in an LP-Sasakian manifolds, *International Journal of Mathematical Analysis*, 4 (7) (2010), 341-348.

(54) **J. P. Jaiswal**, R. H. Ojha: On generalized projective ϕ-recurrent Sasakian manifolds, *Journal of the Calcutta Mathematical Society*, 2 (2) (2010), 1-10.

(55) **J. P. Jaiswal**, R. H. Ojha: On weakly pseudo projectively symmetric manifolds, *Differential Geometry Dynamical System*, 12 (2010), 83-94.

(56) **J. P. Jaiswal**, R. H. Ojha: On generalized ϕ-recurrent LP-Sasakian manifolds, *Kyungpook Mathematical Journal*, 49 (2009) 779-788.   (Scopus indexing)

Conference Papers:
(1) **J. P. Jaiswal**: Semilocal convergence of a computationally efficient eighth-order scheme in Banach spaces under Holder condition on third derivative, *The Journal of Analysis*, **28**, 141–154 (2020).   (Springer)

(2) Kailash Yadav, **J. P. Jaiswal**: Solution of class of fourth order singular singularly perturbed boundary value problems by Haar wavelet method, *Journal of Informatics and Mathematical Sciences,* 9(3), 699-710 (2017).

(3) **J. P. Jaiswal**: An improved R-order convergence derivative-free method for solving nonlinear equations, *Procedia Engineering*, 127, 383-390 (2015).   (Elsevier) (Scopus indexing)

(4) **J. P. Jaiswal**, R. H. Ojha, A. K. Dubey: Some properties of Sasakian manifolds admitting a quarter-symmetric metric connection "*Review Bulletin of the Calcutta Mathematical Society*", 19 (1), 133-138 (2011).

Books/Chapters:
(1) Anuradha Singh, **J. P. Jaiswal**: Improving R-order convergence of derivative free with memory method by two self-accelerator parameters, *Mathematical Analysis and its Applications*, Edited by P. N. Agrawal et al. ISBN No.978-81-322-2486-6, (2015), 501-508.   (Springer) (Web of Science)

(2) **J. P. Jaiswal,** Anuradha Singh: Higher order without memory methods for solving nonlinear equations, *LAP Lambert Academic Publishing*, Germany, ISBN No. 978-3-659-84947-3 (2016).