# **CURRICULUM-VITAE**



## Dr. Sachin Vithalrao Bedre

Assistant Professor,
Department of Mathematics,
Dr. S. D. Devsey Arts College and Commerce and
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## 1. EDUCATIONALQUALIFICATIONS:

- Doctor of Philosophy (Ph.D.) Mathematics:
- Thesis Title: Some fixed point and common fixed-Point theorem Associated with Metric and Banach spaces for Self and non self mapping
- Thesis Supervisor: Professor S. M. Khairnar
- Institute: Dean (R&D) Dr. D. Y. Patil School of Engineering Lohegaon-412105, Pune, India.
- Thesis Co-Supervisor: Dr. B. S. Desale
- Institute: Department of Mathematics, University of Mumbai, Mumbai 400 098, India.
- Graduation: May 2016
  - Master of Science (M. Sc.) Mathematics:
    - University: SRTM University, Nanded, India.
    - Graduation: June 2003.
  - Bachelor of Science (B.Sc.):
    - University: SRTM University, Nanded, India.
    - Graduation: June 2005
  - SOFTWARE EXPOSURE:
    - Computer Languages: C, C++.
    - Computing platforms: Linux, Windows.
    - Mathematical Softwares: MATHEMATICA, MATLAB.
    - Text formatting and office: LaTeX, Microsoft Word, Excel and Power Point.

## 2. PROFESSIONALEXPERIENCE:

- > Teaching and Research Experience: 6 years 8 Month
  - 1. Assistant Professor: 6 years 8 Month (05-01-2017 to Till date)

## Administrative Experience and Activities:

#### 1. Research Committee and Editorial Board Member:

One day National conference on recent trends and development in environmental and basic sciences (RTDEBS-2018) held at Dr.S.D.D.College Wada, dist. Palghar on March 10, 2018.

#### 3. RESEARCHINTEREST:

- Nonlinear Analysis
- Integral Equations
- Differential Equations
- Fixed Point Theory

#### 4. PROFFESIONALMEMBERSHIP:

- Editorial Board Member of American Journal of Applied Mathematics
- Editorial Board Member of Pure and Applied Mathematics Journal
- Editorial Board Member of Applied and Computational Mathematics

# 5. WORKSHOPS/ CONFERENCES PARTICIPATION/PAPER PRESENTATION:

- 1. Completed 'NSS training program' conducted by NSS-ETI Ahmednagar college, Ahmednagar, from 02-03-2022 to 08-03-2022.
- A research paper titled as "On some coupled fixed point theorems in probabilistic b-metric spaces and nonlinear contraction", has been presented in the "National conference on Mathematics and applications in real world", held at S.I. Patil Arts, G.B. Patel Science and S.T.K.V.S. Commerce college, Shahada, Dist. Nandurbag, India February 21-22, 2020.
- 3. A research paper titled as "Hybrid common coupled fixed point results without mixed monotone type properties and application to nonlinear integral equations", has been presented in the "National conference on Recent Trends in Mathematics", held at Department of Mathematics Vaidyanath College, Parli-Vaijnath Dist. Beed, MS, India February 3, 2018.
- 4. A research paper titled as "Coupled coincidence point theorems in partially ordered quasi-metric spaces with a Q-function without g-mixed monotone", has been presented in the "National Conference on Algebra, Analysis and Fuzzy Mathematics", held at School of Mathematical Sciences, North Maharashtra University, Jalgaon January 29-30, 2016.
- 5. A research paper titled as "Hybrid random fixed point theorem and its applications", has been presented in the "National conference on MultidisciplinaryResearch in Sci. and Engineering", held at Department of Engineering Sciences, MIT Academy of Engineering, Alandi, Pune, India June 5-7, 2015.
- 6. A research paper titled as "Fixed point theorems for M-contraction type maps in partially ordered metric spaces and applications", has been presented in the "National conference on **Differential Equations and Applications**", held at Department of

- Mathematics, University of Mumbai, Mumbai, India February 14-15, 2014.
- 7. A research paper titled as "Tripled coincidence point theorems in partially ordered quasi-metric spaces with a Q-function", has been presented in the "National conference on Engineering Applications of Mathematics", held at Department of Engineering Sciences, MIT Academy of Engineering, Alandi, Pune, India June 5-6, 2014.
- 8. A research paper titled as "On Some Tripled coincidence point theorems in partially ordered quasi-metric spaces", has been presented in the "International conference on Mathematics and Its Applications", held at Department of Mathematics, University College of Engineering, Villupuram, Tamilnadu, India December 15- 17, 2014.
- 9. A research paper titled as "Coupled Fixed Point Theorems In Partially Ordered Cone D\*-Metric Spaces", has been presented in the "International conference on Recent Trends in Sciences with Engineering Applications", held at Truba Institute of Engineering and Information Technology, Bhopal, M.P. (India), April, 26-28, (2013).
- 10. A research paper titled as "Krasnoselskii Type Hybrid Fixed Point Theorems And Applications To Fractional Integral Equations", has been presented in the "National conference on Engineering Applications of Mathematics", held at Department of Engineering Sciences, MIT Academy of Engineering, Alandi(D), Pune, June 6-7, (2013).
- 11. A research paper titled as "Some hybrid fixed point theorems and applications", has been presented in the "Recent Trends in Mathematics and its Applications", held at G.D.M Arts, K.R.N Commerce and M.D. Science College, Jamner, Dist. Jalgaon (M.S.), India December 16-17, 2013.
- 12. A research paper titled as "Krasnosel'skii type hybrid fixed point theorems and applications to fractional integral equations", has been presented in the "National conference on Pure and Applied Mathematics", held at Department of Engineering Sciences, COEP Pune, India December 17-19, 2013.
- 13. A research paper titled as "The significance of Mathematical Models in Geographical Sciences", has been presented in the "Sustainable Agricultural development in India: Problems and prospects", held at Mahatma Gandhi Mahavidyalaya, Ahmedpur, Dist. Latur (M.S.) India February 1<sup>-3</sup>, 2011.
- 14. A research paper titled as "Some Applications of Fundamental Theorem of Calculus", has been presented in the "Advances in computational Mathematics", held at Rajeshri Shahu Mahavidyalaya, Latur (M.S) India February 23<sup>-</sup>24, 2011.
- 15. A research paper titled as "Some results in complete G-metric space taking rational contractive mappings", has been presented in the "International conference on Advances in Modeling, Optimization and Computing", held at Indian Institute of Technology, Roorkee, India December 5 7, 2011.
- 16. Attended the workshop on "Revised Syllabus for semester IV of S. Y. B. Sc. (CBCS) Paper III in the subject of Mathematics" organized by Jai Hind College, Churchgate, Mumbai July 6, 2017.

#### 6. Patent:

1. M. Kothawade, G. Dhanorkar, Sachin V. Bedre, **Holographic Traffic Light**, Design no. 377648-001, Patent and Design Journal, 10/2023, 10-03-2023, part III Designs.

### 7. Publications:

Number of Books Published: 02 Number of Research articles:15 Number of Proceeding Articles: 04

## **List of Books:**

- Dr. N. K Halikar, Dr. S. D. Mahadkar, Dr. A.T. Shende and Dr. S. V. Bedre "Abstract Book National Conference on Recent Trends and Developments in Environmental and Basic Sciences (RTD EBS-2018)", Technoscience Academy Publication, Rajkot, (2018), ISBN -978-81-936312-1-8.
- 1. Dr. N. K Halikar, Dr. S. D. Mahadkar, Dr. A.T. Shende and Dr. S. V. Bedre "Journal issue National Conference on Recent Trends and Developments in Environmental and Basic Sciences (RTD EBS-2018)", Technoscience Academy Publication, Rajkot, (2018), ISBN 978-81-936312-1-8.

## **List of Articles:**

- 1. Dhanorkar Gajanan, Sachin V. Bedre, K.M. Jadhav, *Mathematical Model of Rate of Blood Flow and Diffusion due to External and Internal Solution*, Journal of Biology and Today's World, Vol.11, Issue 2, 001-004, (2022).
- 2. Sachin V. Bedre, Remarks on F-weak contractions and discontinuity at the fixed point, Advances in the Theory of Nonlinear Analysis and its Applications, Vol. 4, no. 4, pp.260-265, (2020). Impact Factor 0.4.
- 3. Sachin V. Bedre, Application of Partial Measure of Noncompactness to Tripled Fixed Points, J. Math. Comput. Sci., Vol 10, no. 6, pp. 2658-2673, (2020). Impact Factor 0.1.
- 4. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Nonlinear Triple Fixed and Common Triple Coincidence Fixed point Theorems in Partially Ordered Quasi-Metric Spaces,* International Journal of Mathematical Analysis, vol 9, no. 17, pp. 823-836, (2015). Impact Factor 0.28, H-index:10.
- 5. H. M. Srivastava, Sachin V. Bedre, S. M. Khairnar, and B. S. Desale, *Krasnosel'skii type Hybrid Fixed Point Theorems and their Applications to Functional Integral Equations*, Abstract and Applied Analysis, **Volume 2014**, Article ID 710746, 9 pages, **(2014)**. **Impact Factor 0.92**, **H-index;29**.
- **6.** Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Fixed Point Theorems for M- Contraction Type Maps in Partially Ordered Metric Spaces and Applications*, Adv. Fixed Point Theory, **Vol 4, no. 4,** pp 532-554, **(2014).**
- 7. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Some Nonunique Random Fixed Point Theorems in Polish Spaces*, Adv. Fixed Point Theory, **Vol 4**, **no. 4**, pp 586-604,**(2014).**
- 8. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, Coupled Coincidence Point Theorems for Nonlinear Contractions in Partially Ordered Quasi-Metric Spaces with a Q-Function without Mixed g- Monotone Property, International Journal of Mathematical Analysis, Vol8, no. 45, pp 2205-2219, Impact Factor 0.281,(2014).
- **9.** Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *On Some Tripled Coincidence Point Theorems in Partially Ordered Quasi-Metric Spaces*, Proceeding of the International

- Conference on Mathematics and its Applications-2014 15-17 December-2014, University College of Engineering, Villupuram Anna University, Chennai, India: ISBN 978-81-923752-6-7, (2014).
- 10. Bapurao C. Dhage, Sachin V. Bedre, Namdev S. Jadhav, Shin M. Kang, Common random fixed point theorems for a pair of generalized weakly contractive mappings in polish spaces, Adv. Fixed Point Theory, Vol. 4 (1), pp. 12-24, (2014)
- 11. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *A Unique Common Quartet Fixed Point Theorem in Partially Ordered Cone Metric Spaces*, JP Journal of Fixed Point Theory and Applications, Volume 8, Number 3, pp 147-164, (2013), published on May, 2014. Impact Factor 0.785.
- 12. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Coupled Fixed Point Theorems In Cone D\*-Metric Space*, Mathematical Theory and Modeling, Vol 3, No. 6, pp. 297-304(2013).
- 13. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Hybrid Fixed Point Theorems For M-Contraction Types Maps And applications to Functional Differential Equation,* Proceeding of "International Conference on Information and Mathematical Sciences". This proceeding is jointly published by **ELSEVIER** and Baba Farid College of Engineering and Technology, Bhatinda, Punjab. **pp.** 390-396, **October 2013**. ISBN:9789351071624.
- 14. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, Some Fixed point Theorems In Partially Ordered G-Metric Spaces and Applications to Globle Existence and Attractive Results for Nonlinear Functional Integral Equations, Proceeding of International Conference on Recent Trends in Engineering Sciences, (ICRTES'13), this proceeding is published by Elsevier India Private Limited(2013).
- 15. Sachin V. Bedre, S. M. Khairnar and B. S. Desale, *Some Fixed Point Theorem Satisfying general Contractive Condition of Integral Type in Generalized Metric Space,* International Journal of Theoretical and Applied Physics (IJTAP), Vol 2, no. II, pp. 139-146, (2012). Impact Factor 0.437.
- **16.** Sachin V. Bedre, S. M. Khairnar, B. S. Desale and Ramakant Bhardwaj, *Fixed and Common Fixed Point Theorems in D\*-Metric Space,* International J. of Math. Sci. & Engg. Appls. (IJMSEA) Vol 6 No. V, pp. 309-328 **(2012)**. **Impact Factor 0.5029**.
- 17. Sachin V. Bedre and Ramakant Bhardwaj, *Some results in completeG-metric space taking rational contractive mappings*, Proceeding of International conference on Advances in Modeling, Optimization and Computing, pp.1115-1122, (2011).
- 18. Ramakant Bhardwaj and Sachin V. Bedre, Fixed point and common fixed point theorem in Banach space taking rational expression for 1, 2, 3 mapping, Research Journal of Pure Algebra, Vol. 1(5), pp. 96-110, (2011).Impact Factor 6.972.
- 19. Sachin V. Bedre, Piyush Bhatnagar, Abha Tenguriya and R.N. Yadava, Fixed point and common fixed point theorem in 2-Banach space taking rational expression for 1, 2, 3 mapping, International Journal of Theoretical and Applied Science, Vol. 3(2),pp. 95-102, (2011).

I hereby declare that all the statements above are true and complete to the best of my knowledge.

Place: Wada, India

Date: 20 July 2022 Dr. Sachin V. Bedre