

Name of the faculty: Dr. Nikam Vasant Ramchandra



<b>Designation</b>	Associate Professor
<b>Name of the department</b>	Mathematics
<b>E-mail</b>	Vasantnikam.1151@gmail.com
<b>Qualification</b>	M.Sc. Ph. D.
<b>Administrative Experience</b> <ol style="list-style-type: none"><li>1. H.O.D. Maths up-to July 2021</li><li>2. Academic and Research Coordinator</li><li>3. Examination Chairman</li></ol>	
<b>Representation on Academic / Administrative bodies / Member of organizational bodies.</b> <ol style="list-style-type: none"><li>1. Member of <b>Senate</b>, University of Pune elected on 24<sup>th</sup> August, 2005 to 2010</li><li>2. Member of <b>B.O.S.</b> in Statistics and Computer Applications from 1<sup>st</sup> Sept. 2005 to 2010.</li><li>3. Life Member of Indian Mathematical Society (IMS)</li><li>4. Life Member of Indian Indian Science Congress Association (ISCA)</li><li>5. Petron member of Marathwada Mathematical Society (MMS)-2012</li><li>6. Worked as Member of <b>Local Management Committee</b> (2010-15) of L.V.H. College, panchavati, Nashik-3 from 18 Sept. 2010 to 30 Aug. 2012</li><li>7. Worked as Member of <b>College Development Committee</b> (2017-2022) of S.P.H. Arts, Science and Commerce College, Namur, Dist.-Nashik, from 16 Aug. <b>2017 till July 2021</b></li><li>8. President, PUCTO local unit M. S. G. College, Malegaon camp, Nashik Dist. from 2007 to 2008.</li><li>9. General Secretary, PUCTO Nashik dist. From 2007 to 2009.</li><li>10. General Secretary, PUCTO from 2009 to 2011.</li><li>11. Member of MFUCTO Executive Council, From 2010 to 2013.</li></ol>	
<b>Teaching Experience: 30 Years + 1 Year Jr. College</b>	
<b>Awards / Recognitions</b> <ol style="list-style-type: none"><li>1. Selected for First Edition of 2000 outstanding Scientists of the 21<sup>st</sup> Century, by the <b>International Biographical Centre of Cambridge, England</b> on Jan. 2001.</li><li>2. <b>Awarded</b> as a <b>Best Citizen of India</b> by <b>The International Publishing House, Delhi on 02<sup>nd</sup> Aug. 2018</b> for the academic achievements and social contribution.</li></ol>	

#### Research Guidance for M.Phil./Ph.D./Project

1. One of the research student Ms Gurao Aparna Rajendra (Reg. No.-17515048) **Awarded with Ph. D degree** in 2017, By Shri J.J.T. University Rajasthan Under the Guidance of Dr. V. R. Nikam Dept. of Maths.
2. Four students registered for Ph. D. Under the my Guidance at SPPU

#### Contribution as referee:

1. Expert for evaluation of thesis entitled “APPLICATION OF MATHEMATICAL TECHNIQUES TO SOLVE TRAFFIC CONGESTION” – by MEGHANA N. VYAS, Reg No.: 291017012, for the award of Ph.D. to JJTU University in Aug. 2020.
2. As a Referee for Mr. A. G. Ghanwat “Pre – viva” at Research Centre in Mathematics, NACSC, Ahmednagar

#### Research Projects:

1. **Equated Monthly Instalments in the Insurance Business** funded **Rs. 1,35,000/- B.C.U.D. University of Pune** in 2008-2011.

#### Reviewer of Journals

1. Scientific Research Publishing, India

#### Member of Editorial Board

1. Special Editor of the Bulletin of the Marathwada Mathematical Society (ISSN: 0976-6049) Volume 13, No. 2 Dec. 2012.
2. Worked as Member of **Local Advisory Committee of the National Conference** on “Recent Developments in Mathematics and Statistics” to be held at T. C. College, Baramati Dist. Pune on 14th to 16th Feb. 2013

#### Patent / Copyright

1. **Patent Application No. 202121052894**  
**Design Wearable Sensors to provide Healthcare Notifications using IoT Based.**  
**Publication Date: 17/12/2021**

#### Research paper published / presented

1. Paper Entitled “DOUGLAS HIGHER ORDER FINITE DIFFERENCE SCHEME FOR ONE DIMENSIONAL PENNES BIOHEAT EQUATION” is published in IJAEA: An International Journal of Advanced Engineering and Applications, Vol-1, 2011(June Issue).(ISSN 0975 – 7783)
2. The Research paper “MONOTONE TECHNIQUE FOR SYSTEM OF CAPUTO FRACTIONAL DIFFERENTIAL EQUATIONS WITH PERIODIC BOUNDARY CONDITIONS” published in an International Journal of Dynamics of *Continuous, Discrete and Impulsive Systems* Series A (ISSN1201–3390) vol.(19) No. -5, June-2012.

3. The Research paper "SOLUTION OF FRACTIONAL PARTIAL DIFFERENTIAL EQUATIONS USING ITERATIVE METHOD" published in an International Journal of Fractional Calculus and Applied Analysis (Print ISSN No. 1311-0454) Volume-15, Number 4 (2012). [Springer](#)
4. The Research paper on "ADOMIAN DECOMPOSITION METHOD FOR FRACTIONAL BENJAMIN-BONA-MAHONY-BURGER'S EQUATIONS" published in an International Journal of *Appl. Math. and Mech.* (ISSN: 0973-0184)8(12): 42-51, 2012.
5. The Research paper "FINITE DIFFERENCE SCHEME FOR SPACE FRACTIONAL DIFFUSION EQUATION WITH MIXED BOUNDARY CONDITIONS" published in an American Journal of Mathematics and Sciences (ISSN No. 2250-3102) Volume-2, Number 1, Jan. 2013).
6. Published a research paper entitled "FRACTIONAL ORDER FINITE DIFFERENCE SCHEME FOR SPACE FRACTIONAL DIFFUSION EQUATION" in Journal of Engineering and automation Problems, NO. 3-2014(ISSN No. 2050-3102).
7. Published a research paper entitled "MITTAG LEFFLER FUNCTIONS, ITS COMPUTATIONS AND APPLICATIONS TO DIFFERENTIAL EQUATIONS OF FRACTIONAL ORDER" in Proceeding Book of international conference on Mathematical Modelling and Applied soft Computing 2012 Vol.-I(ISBN No. 978-81-81693-86-5).
8. The Research paper on "Study of Nano-crystalline ferrite material  $MgNiZnFe_2SO_4$  using electrical and thermal methods." published in an International Journal Renewable Research Journal (ISSN 2321-1067) Rex journal Volume 3 Issue 1 Page | 356-359, April 2015
9. The Research paper on "Introducing ranking Error Functions in Ranked Set Sampling" published in an International Multidisciplinary research Journal Golden Research Thoughts (ISSN 2231-5063), September, 2015.
10. The Research paper on "Some Contribution on Method of Moving Planes" published in an CTBC's International research Journal (ISSN 2350-0905), Vol. 2, 63-64, Issue 7, Jan, 2016.
11. The Research paper on "Some Properties and Applications of Local Fractional Fourier Transform" published in an Aryabhata Journal of Mathematics and Informatics (Impact Factor- 5.856), (ISSN:2394-9309 (E) / 0975-7139 (P)), Vol. 9, 740-743, Issue :1 Jun, 2017.
12. Published the Research paper on "Synthesis and Characterization of TI-2223 superconducting film by Electrocyclization technique" in an International Research Journal of Science and Engineering ( IRJSE)(Impact Factor- 4.11) (ISSN: 2322-0015 (p)), June, 2017. UGC approved journal no. 63628.

13. Published the Research paper on "Solution of Space Time Fractional Partial Differential Equations by Adomian Decomposition Method" in an International Journal of Computational Engineering Research (Impact Factor- 5.856) (ISSN: 2250-3005 (e)), Vol. 8, 740-743, Issue :6 June, 2018. UGC approved journal si. no. 4627, journal no. 47631.
14. Published the Research paper on "Method of upper and lower solutions for system of Riemann-Liouville Fractional Differential Equations with Periodic Boundary conditions" in Proceeding of The IIER International Conference (ISBN: 978-93-87405-18-9), held at Philadelphia, USA on 28-29 May, 2019. Also, same Paper Published in International Journal of Management and Applied Sciences (IJMAS) ISSN 2394-7926, Impact Factor:3.98, Peer Reviewed Journal Vol. 5, Issue 9, Sept. 2019 on 17/12/2019.
15. Published the Research paper on "Challenges and Suggestions in Indian Higher Education System" in a Journal of Interdisciplinary Cycle Research (Impact Factor- 6.765) (ISSN NO: 0022-1945 (e)), Vol. XII, Issue: IV, April, 2020. 708-712, UGC Care list, Group-II journal.
16. Published the Research paper on "Role of Mittag-Leffler Function in Susceptible Infectious Recovered (SIR) Model" in an **International Journal of Engineering Science and Mathematics** (Impact Factor- 6.2) (ISSN: 2320-0294 (e)), Vol. 9, 71-78, Issue :3, March, 2020. UGC approved journal.
17. Published the Research paper on Solving fuzzy Caputo- Fabrizio Fractional one dimensional Heat equations by Iterative Fuzzy Laplace Transform method using MATHEMATICA in an Journal of Xidian University Impact Factor ISSN No:1001-2400, VOLUME 16, ISSUE 3, 2022 UGC Care List.
18. Published the Research paper on THE DOUBLE FUZZY ELZAKI TRANSFORM FOR SOLVING FUZZY PARTIAL DIFFERENTIAL EQUATIONS JOURNAL OF THE CHUNGCHONG MATHEMATICAL SOCIETY Volume 35, No. 2, May 2022. ISSN: 1226-3524. UGC Care-List.

#### **Books published / chapter in a book**

1. Co-Author of a textbook for F.Y.B.Com. entitled "Mathematics & Statistics" published by Seth Publishers first edition in June, 2004.
2. Co-Author of a textbook for F.Y.B.Com. entitled "Computer Applications & Programming" published by Seth Publishers in June, 2004.
3. Co-Author of a textbook for F.Y.B.Com. entitled "Mathematics & Statistics" published by Seth Publishers second edition in June, 2005.
4. Co-Author of a textbook for F.Y.B.Com. Entitled "Mathematics & Statistics" published by Seth Publishers in June, 2008.
5. Co-Author of a textbook for B.B.A. entitled "Business Mathematics" published by Diamond Publishers in Oct., 2008. ISBN:978-81-8483-087-3

6. Co-Author of a textbook for B.B.A. entitled "Business Statistics" published by Diamond Publishers in Dec., 2008. ISBN:978-81-8483-109-2
7. Co-Author of a textbook for B.C.A. entitled "Elements of Statistics" published by Diamond Publishers in Jan., 2008, ISBN:978-81-8483-101-6.
8. Co-Author of a textbook for F.Y.B.Com. Entitled "Mathematics & Statistics" published by Seth Pub. Third edition in June, 2011. ISBN:978-93-81477-25-0
9. Co-Author of a textbook for F.Y.B.Com. Entitled "Mathematics & Statistics", 2<sup>nd</sup> edition, published by Seth Publishers in Aug. 2011. ISBN:978-93-81477-56-4.
10. LINEAR ALGEBRA: Chandralok Prakashan, Kanpur in 2013, ISBN:978-93-82358-43-5.
11. GROUP THEORY: Chandralok Prakashan, Kanpur in 2013, ISBN:978-93-82358-44-2
12. Business Mathematics and Statistics: Chandralok Prakashan, Kanpur in 2013, ISBN:978-93-82358-45-9
13. Published a book entitled, Mathematics and Statistics: Idol Publications/Techmach Publication, Pune (ISBN:978-93-84283-01-8), July, 2014
14. Numerical Analysis :Chandralok Prakashan, Kanpur in 2016, ISBN:978-93-86016-24-9
15. Ordinary Differential Equations: Chandralok Prakashan, Kanpur in 2020, ISBN:978-81-941696-5-9.
16. Published a book entitled, Ring Theory : Chandralok Prakashan, Kanpur ( ISBN:978-81-941696-06-6) June, 2021.

**Conferences/Seminars/ Workshop organized / attended**

**Organized:**

1. As a Co-ordinator organized Special **Summer Coaching Classes** in Basic Mathematics for F.Y. / S.Y./T.Y.B.Sc. **Students** at MSG College, Malegaon-Camp from 15<sup>th</sup> to 30<sup>th</sup> June, 2005.
2. As a Co-ordinator organized **Special Summer Coaching Classes** in Basic Mathematics for F.Y. / S.Y./T.Y.B.Sc. **Students** at MSG College, Malegaon-Camp from 15<sup>th</sup> to 30<sup>th</sup> June, 2006.
3. As a Co-ordinator of one day workshop in mathematics organized for **F.Y.B. Com. Syllabus** at LVH College, Panchavati, Nashik on 1<sup>st</sup> Oct., 2007.

4. For the **Junior College teachers** our Institution M. G. Vidyamandir's organized two-day workshop on mathematics at M.S.G. College, Malegaon-camp from 18/11/2007 to 19/11/2007. In this workshop, I played the role of Resource Person as well as Co-Ordinator of the programme.
5. As a Co-Ordinator of **State level workshop** on 'Recent Trends in mathematics' organized for Researchers at L V H College, Panchavati, Nashik on 09<sup>th</sup>& 10<sup>th</sup> Jan. 2009.
6. As a Co-Ordinator of one day workshop in mathematics organized for **T.Y.B. Com. Syllabus** at L.V.H. College, Panchavati, Nashik on 13<sup>th</sup> March, 2010.
7. As a Co-Ordinator of **National level workshop** on 'Recent Trends in Mathematics (Computing)' organized for Researchers at L.V.H. College, Panchavati, Nashik on 27<sup>th</sup> to 29<sup>th</sup> Jan. 2011.
8. As a Convener of **National level Conference** on 'Recent Developments in Graduate Mathematics' organized by Dept. of Mathematics, L.V.H. College, Panchavati, Nashik on 06<sup>th</sup> to 08<sup>th</sup> Feb. 2012.

**Attended :**

1. Presented a research paper on **New method for initial basic feasible solution** at 63<sup>rd</sup> Annual National Conference of Indian Mathematical Society at Ahmednagar between 27-30 Dec. 1997.
2. Presented a paper on **"Relation of a Group on a Ring"** in the International Conference on Relativity, organized by Dept. of Maths, Amaravati Uni. Amaravati held from 11-14 January, 2005.
3. Presented a poster on **"E. M. I. in Insurance Business"** in the Regional Conference for Pune University College Teachers "INNOVATION-2009" held at New Arts, Commerce and Science College, Ahmednagar, from 09-10 December, 2009.
4. Presented a paper on **"Economics of Agriculture Development in Market Yard"** in the National Seminar on Recent trends in Commerce, Mathematics & Statistics organized by Dr. Ambedkar College of Arts and Commerce, Yerwada, Pune held from 17-19 Feb., 2010.
5. Presented a paper **"E. M. I. in Insurance Business"** in the Regional Conference for Pune University College Teachers "INNOVATION-2010" held at H.V.Desai College, Pune, from 22-23 Nov. 2010.
6. **Attended & Presented** a Research Paper **"Study of fractional Fourier transforms of Standard Normal Function"** in National Workshop on "Recent Trends in Mathematics" held at L.V.H. College, Nashik from 27-29 Jan. 2011.
7. Presented a Paper **"Some Engineering Applications of Fractional**



- Calculus**” in International Conference on “Issues and advances in and Business Management, Engineering and Social Sciences” held at Pune on 20<sup>th</sup> Dec. ,2011.
8. **Attended & Presented** a Paper “**Simulation of Real Estate Price Environment**” in International Conference on “Recent Trends in Commerce, Economics and Management” held at Pune on 24<sup>th</sup> Jan.,2012.
  9. **Attended & Presented** a Research Paper “**Lake Water Pollution Model using C++ and Visual Basic Languages**” in National Conference on “Recent Developments in Graduate Mathematics” held at L.V.H. College, Nashik from 06-08 Feb. 2012.
  10. **Attended & Presented** a Paper “**Financial Management and real price index**” in 1<sup>st</sup> International Interdisciplinary Research Conference on “Business, Management, Engineering, Technology& Social Sciences” held at Hotel Gateway, Surat on 24-25<sup>th</sup> Aug., 2012.
  11. **Attended** National Conference on “Recent Developments In Mathematics & Statistics” on 14-16 Feb. 2013 at T.C. College, Baramati, Pune And Marathwada Mathematical Society, Aurangabad. Also **Presented** the Research Paper “**A Comparative Study of 2<sup>n</sup> Factorial Expt. With ...Testing Approach**” during the Paper presentation session.
  12. **Attended & Presented** a Paper “**Fractional order Finite Difference Scheme for Space Fractional Diffusion Equation**” in International Conference on “Mathematical Techniques in Engineering Applications” held at Dehradun, Uttarakhand, India from Oct. 24-25, 2013.
  13. **Attended & Presented** a Paper “**DOUGLAS HIGHER ORDER FINITE DIFFERENCE SCHEME FOR ONE DIMENSIONAL PENNES BIOHEAT EQUATION**” in International Conference on “Advances in Commerce, Economics, Banking, Humanities and Social Sciences” held at Hotel Aurora Towers, camp, Pune on 26<sup>th</sup> Oct., 2013.
  14. **Attended &Presented** a Paper “**SAFE UTILIAZATION OF ADVANCED NANOTECHNOLOGY**” in 6<sup>TH</sup> International Conference on “technological Development towards Clean and Green India” held at TSSIA House, Wagle Estate, Thane, Maharashtra, India on 20<sup>th</sup> Dec., 2014.
  15. **Attended &Presented** a Paper “**Some Contribution on Method of Moving Planes**” in International Conference on “Environmental Systems and Sustainable Development” held at C. T. Bora college, Shirur, Dist. Pune, Maharashtra, India on 15-16 Jan., 2015.

16. Attended and presented research paper 'obtaining an i. b. f. solution of a T. P.' 87<sup>th</sup> Session of the Indian Science Congress Association at Pune between 03-07 January, 2000.
17. **Attended** National Symposium on "Fuzzy Topology and its Applications" Organized by Post Graduate Dept. of Mathematics, New Arts, Commerce and Science College, Ahmednagar, held on 12-14 March, 2001.
18. **Attended** Interdisciplinary National Conference on "Einstein's Theory of Relativity" Organized by S. P. College, Pune, on 08-10 December, 2005.
19. **Attended** National Conference on "Role of Private Institute in Higher Education" organized by AIFUCTO at Hyderabad on 7-9 Oct. 2007.
20. **Attended** the Annual Conference of Indian Mathematical Society at Pune between 27-30 Dec. 2007.
21. **Attended** National Conference on "Higher Education in India...Issues & Challenges" organized by AIFUCTO at Gujarat University Ahmedabad on 10<sup>th</sup> to 12<sup>th</sup> Oct. 2009.
22. **Attended & presented a paper in** National Conference on "Restructuring and Privatization of Higher Education in India: Inclusiveness and Access" organized by NMU, Jalgaon on 19<sup>th</sup> to 21<sup>st</sup> Nov. 2010.
23. **Attended** Two days Regional Research Conference at B.J.S. Arts, Commerce and Science College at Wagholi on 26-27 March 2012 and **Presented a paper** organized by B.C.U.D., University of Pune, Pune-07
24. **Attended** National Conference on "Recent Trends in Computer Sciences and Applications and Computational Mathematics" on 21-22 Dec. 2012 at Indira college of Commerce, Pune.
25. **Attended** 26<sup>th</sup> International Conference of Jangjeon Mathematical Society, South Korea held at Acharya Institute of Graduate Studies, Bangalore During August 01-04, 2013.
26. **Attended** & Resource Person for 18<sup>th</sup> National Seminar on Physics and Technology of Sensors Organized by T. C. College, Baramati, Dist. Pune from 06-08 March 2014.
27. **Attended** 1<sup>st</sup> National Teachers' Congress Organized by M.I.T. College, Kothrud, Pune on 23-25 Sept. 2016.
28. **Attended** National level conference on "**Research Methodology in**



**Social Sciences”** held at Kar. Ramraoji Aher Arts, Commerce and Science college, Deola, Dist. Nashik, Maharashtra, India on 15-16 December, 2016.

29. **Attended** International conference on Applied Nanotechnology and Nanoscience and **presented a research paper** “Synthesis and Characterization of TI- 2223 Superconducting Film by Electrocyclization Technique” held at T. C. college, Baramati, Dist. Pune, Maharashtra, India on 07-09 December, 2017. Also **delivered an invited talk** in same Conference. The presented **paper published** in Int. Research Journal of Science and Engineering (University Approved) ISSN: 2322-0015, Impact Factor 4.11
30. **Attended** National Level Conference on Recent Innovative and Effective Intra-disciplinary Research in Humanities held at K. R. Aher Arts, Science and Commerce College, Deola, Nashik on 5-6 Feb., 2018.
31. **Attended** 646<sup>th</sup> International Conference of Engineering and Research held at Philadelphia, USA on 28-29 May, 2019 and Presented the Research paper “Method of upper and lower solutions for system of Riemann-Liouville Fractional Differential Equations with Periodic Boundary conditions” published in Proceeding of The IIER international conference, ISBN: 978-93-87405-18-9. same Paper is Published in an International Journal of Management and Applied Science, ISSN: 2394-7926 Volume-5, Issue-9, Sep.-2019
32. **Attended** National Level Seminar on **Role of NAAC in Sustainable Development of Higher Education** held at Dadasaheb Bidkar Arts, Science and Commerce College, Peth, Nashik on 12-13, Dec., 2019.
33. **Attended** National Level Webinar on "Assessment and accreditation: A revised accreditation framework for affiliated colleges" organized by Modern College, Shivajinagar, Pune and IQAC Cluster India on 14-17, April, 2020.
34. **Attended** National Level workshop on "Role of Non-teaching staff Members in NAAC Accreditation" organized by R.J. College, Mumbai, Maharashtra under the aegis of UGC PARAMARSH SCHEME on 27-29, April, 2020
35. **Attended** International Webinar on "Life and Contributions of Maryam Mirzakhani" organized by Dept. of Mathematics, St. Xavier's College for Women, Aluva, Kerala as part of Women in Mathematics Day on 12<sup>th</sup> May, 2020.

#### E-content developed

1. Website:
2. You Tube link:

**Social Media links**

<b>Research gate</b>	
<b>Research Scholar</b>	<a href="https://scholar.google.com/citations?user=y_Eyu6AAAAAJ&amp;hl=">https://scholar.google.com/citations?user=y_Eyu6AAAAAJ&amp;hl=</a>
<b>Orchid Id</b>	
<b>Facebook</b>	
<b>Whats app</b>	
<b>Telegram</b>	