Prashantkumar Patel

Resumé

A/4 Pratik Tenements
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Success isn't a result of spontaneous combustion. You must set yourself on fire. *-Arnold H. Glasow*

Qualification

June 2014 **NET-CSIR Exam in Mathematical Science**
Clear with ALL INDIA rank 1 under Lectureship category

2012-2017 **PhD Mathematics**
Department of Applied Mathematics and Humanities, S V National Institute of Technology, Surat
The Thesis entitle "Some Summation-Integral Type Operators in Approximation Theory" was completed in 2017 from S V National Institute of Technology, Surat.

2005-2006 **M.Phil. Mathematics (80.60% with Distinction)**
Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar
Dissertation completed under Prof.(Dr.) Subhash J. Bhatt, Ex-Head, Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar with the title "Generalizations of Classical Theorems of Wiener and Levy".

2003-2005 **M.Sc. Mathematics (78.69% with Distinction)**
Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar

2000-2003 **B.Sc. Mathematics (70.10 % with First class)**
St. Xavier's College, Gujarat University, Ahmedabad

Employment Details

2021-today Assistant Professor, Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar
2012-2021 Assistant Professor, St. Xavier College (Autonomous), Ahmedabad
2011-2012 Assistant Professor, Gandhinagar Institute of Technology, Moti Bhoyan, Gandhinagar
2008-2010 Stock Controller, Bradgate Bakery, Leicester, LE4 1WX, UK
2007-2008 Lecturer in Mathematics, A.D. Patel Institute of Technology, New Vallabh Vidhyanagar
2006- 2007 Lecturer in Mathematics, 6 months in Birla Visvakarma Engineering College, Vallabh Vidhyanagar
2006-2007 Lecturer in Mathematics, 6 months in V.P. & R.P.T.P. Science College, Vallabh Vidhyanagar

Project

2022-2024 SEED Money project, On Integral Generalization of Mittag-Leffler Operators, sponsored by Sardar Patel University (Completed)

Publications

1. V. N. Mishra and **Prashantkumar Patel**, Approximation by the Durrmeyer-Baskakov-Stancu Operators, Lobachevskii Journal of Mathematics (Springer US), 2013, Vol. 34, No. 3, 272–281.
2. V. N. Mishra and **Prashantkumar Patel**, A short note on approximation properties of Stancu generalization of q-Durrmeyer operators, Fixed Point Theory and Applications (a Springer Open Journal), 2013, Vol. 2013, 1-5.

3. V. N. Mishra and **Prashantkumar Patel**, Approximation properties of q-Baskakov-Durrmeyer-Stancu operators, Mathematical Sciences (a Springer Open Journal), 2013, Vol. 38 no. 7, 1-12.
4. V. N. Mishra and **Prashantkumar Patel**, Some Approximation Properties of Modified Jain-Beta Operators, Journal of Calculus of Variations (Hindawi Publishing Corporation), 2013,Vol. 2013, 1-9.
5. V. N. Mishra and **Prashantkumar Patel**, The Durrmeyer type modification of the q-Baskakov type operators with two parameter α and β, Numerical Algorithm (Springer US), 67 (4), 753-769, 2015.
6. **Prashantkumar Patel** and V. N. Mishra, Approximation properties of certain summation integral type Operators, Demonstratio Mathematica (De Gruyter), 48(1) 77-90, 2015.
7. **Prashantkumar Patel** and V. N. Mishra, Jain-Baskakov Operators and its Different Generalization, Acta Mathematica Vietnamica (Springer Singapore) 40(4), 715–733, 2015. DOI 10.1007/s40306-014-0077-9.
8. **Prashantkumar Patel** and V.N. Mishra, Rate of convergence of modified Baskakov Durrmeyer type operators for functions of bounded variation, Journal of Difference Equations (Hindawi Publishing Corporation) Volume 2014, Article ID 235480, 6 pages, 2014.
9. V. N. Mishra and **Prashantkumar Patel**, On generalized integral Bernstein operators based on q-integers, Applied Mathematics and Computation (Elsevier) 242 (2014) 931–944.
10. **Prashantkumar Patel**, V. N. Mishra, A note on Simultaneous Approximation of some Integral Generalization of the Lupaș operators, Asian Journal of Mathematics and Computer Research, 4(1), 28-44, 2015.
11. **Prashantkumar Patel**, V. N. Mishra, On class of Linear and Positive Operators, Bollettino dell'Unione Matematica Italiana(Springer International Publishing), 8(2), 81-96, 2015.
12. **Prashantkumar Patel**, V. N. Mishra, On Simultaneous Approximation for Generalized Integral Type Baskakov Operators, , International Journal of Analysis (Hindawi Publishing Corporation)Volume 2015 Article ID 805395, 10 pages, 2015.
13. **Prashantkumar Patel**, V. N. Mishra, M. Orkcu, Approximation properties of modified Szász–Mirakyan operators in polynomial weighted space, Cogent Mathematics (Taylor & Francis Online), 2(1), 1106195, 2015.
14. M. Orkcu, **Prashantkumar Patel**, V. N. Mishra, Shape Preserving Properties of the Generalized Baskakov operators, Gazi University Journal of Science, 29(1), 87-94,2016.
15. **Prashantkumar Patel**, V. N. Mishra, On Approximation Properties of Modified Sazas-Mirakyan Operators via Jain Operators, Analysis in Theory and Applications,32(3), 232-241,2016
16. V. N. Mishra and **Prashantkumar Patel**, $\alpha\beta$-Statistical Convergence of Modified q-Durrmeyer Operators, Communications Faculty of Sciences University of Ankara Series A1: Mathematics and Statistics, 66(2), 263-275, 2017.
17. **Prashantkumar Patel**, V. N. Mishra, An Asymptotic Formula of Modified Family of Positive Linear Operators, Kalpa Publications in Computing, ICRISET2017, 2, 62-66, 2017.
18. **Prashantkumar Patel**, V. N. Mishra and M. Orkcu, Some Approximation Properties of the Generalized Baskakov operators, Journal of Interdisciplinary Mathematics, 21(3), 611-622, 2018.
19. **Prashantkumar Patel**, V. N. Mishra, Some Approximation Properties of Modified Szasz-Mirakjan-Baskakov Operators, Proceedings of the Jangjeon Mathematical Society, 20(3) 443-449, 2017.
20. **Prashantkumar Patel**, V. N. Mishra, The Voronoskaja type Asymptotic Formula for q-Derivative of integral Generalization of q-Benstein Operators, Communications Faculty of Sciences University of Ankara Series A1: Mathematics and Statistics, 67(2), 298-305, 2018.

21. **Prashantkumar Patel**, V. N. Mishra, The Certain Summation Integral type Operators and its Inverse, Advanced Studies in Contemporary Mathematics, 28(2), 261-268, 2018.
22. **Prashantkumar Patel**, On the operators defined by Lupas with some parameters based on q-integers, Mathematics Today, 34(A), 202-210, 2018.
23. D. R. Prajapati, **Prashantkumar Patel** & U. M. Prajapati, Series of a function using integration by parts, Mathematics Today, 34(A), 183-187, 2018
24. V N Mishra, **Prashantkumar Patel**, L N Mishra, The Integral Type Modification of Jain Operators and its Approximation Properties, Numerical Functional Analysis and Optimization, 39(12), 1265-1277, 2018.
25. **Prashantkumar Patel**, Some Approximation Properties of New Families of Positive Linear Operators, FILOMAT, 33 (17), 5477–5488, 2019.
26. **Prashantkumar Patel**, V. N. Mishra, Some approximation properties of a new class of Linear Operators, Computational and Mathematical Methods, https://doi.org/10.1002/cmm4.1051
27. **Prashantkumar Patel**, Some Approximation Properties of King type Generalization of modified positive linear operators, Applied Mathematics E-Notes, 20, 323-335, 2020
28. **Prashantkumar Patel**, Some Approximation Results of Kantorovich type operators, Journal of Computational Analysis and Applications 29 (1), 52-67, 2021.
29. **Prashantkumar Patel** & M. Bodur, On Integral Generalization of Lupas-Jain Opertors, Filomat, 36 (3), 729–740, 2022.
30. **Prashantkumar Patel**, Dilek SÖYLEMEZ, Övgü GÜREL-YILMAZ, On Lupaş-Jain-Beta operators, Thai Journal of Mathematics, 20 (2), 511-525, 2022.
31. **Prashantkumar Patel**, Schurer Type Modification of Lupas-Jain operators and its Properties, Palestine Journal of Mathematics 11 (III), 75-84, 2022.
32. **Prashantkumar Patel**, L Rathour, The Rate of Approximation of Functions in an Infinite Interval by Positive linear Operators, Georgian Mathematical Journal, 29 (4), 575-581, 2022.
33. **Prashantkumar Patel**, V N Mishra, On modification of Jain operators and its approximation properties, Mathematical Foundations of Computing, vol. 8, no. 2, pp. 194–208, 2025, doi: 10.3934/mfc.2023051 .
34. **Prashantkumar Patel**, Some Positive Linear Operators & their Difference, Proceedings of '4th Prof. P. C. Vaidya International Conference on Mathematical Sciences', 1, 245-254 .
35. **Prashantkumar Patel**, J. C. Prajapati, Certain Properties of generalized Mittag-Leffler Operators, accepted in a book chapter, Fractional Differential Equations: Theoretical Aspects and Applications, Chapter 3: Doi: `https://www.sciencedirect.com/science/article/abs/pii/B9780443154232000084`
36. **Prashantkumar Patel**, R. S. Rajawat, L. Rathour and V. N. Mishra, Statistical Convergence of Lupas-Jain operators. AIP Conference Proceedings, 3005, 020034 (2024) `https://doi.org/10.1063/5.0210525`
37. Shruti S. Kariya, R.B. Gandhi, Harsh P. Kothari, **Prashantkumar Patel**, On Approximation using Generalization of Lupas operators, Applied Mathematics E-notes, 24, 2024, 362-370. Q3 DOI: `https://www.math.nthu.edu.tw/~amen/2024/AMEN-A231114.pdf`.
38. **Prashantkumar Patel**, On Positive Linear Operators linking Gamma, Mittag-Leffler and Wright Functions, International Journal of Applied and Computational Mathematics, 10 (152) 2024. Doi: `https://doi.org/10.1007/s40819-024-01786-6`.
39. H. B. Parmar, **Prashantkumar Patel**, On Lupas-Kantorovich Operators with Riemann-Liouville Fractional integral, 39:9 (2025), 3171–3189. Filomat (SCOPUS, SCI-IF -0.9). DOI: https://www.pmf.ni.ac.rs/filomat-content/2025/39-9/39-9-23-23156.pdf

40. H. B. Parmar, **Prashantkumar Patel**, Approximation Properties of Truncated Nonlinear Mihesan Operators, Mathematical Methods in the Applied Sciences, https://doi.org/10.1002/mma.10755
41. H. B. Parmar, **Prashantkumar Patel**, On Riemann-Liouville Type Modified Fractional Baskakov-Kantorovich Operators, Recent Issues on Mathematical Sciences 16-30, 2024 (Book Chapter). Indian Institute of Teacher Education (IITE).
42. **Prashantkumar Patel**, On Durrmeyer Variant of Mittag-Leffler Operators, Dolomites Research Notes on Approximation, 18(2), 39-46, 2025 (SCOPUS, Q1) DOI: https://drna.padovauniversitypress.it/2025/2/6
43. H. B. Parmar, **Prashantkumar G. Patel**, Approximation Properties of Truncated Nonlinear Mihesan Operators, Mathematical Methods in the Applied Sciences, vol. 48, no. 8, pp. 8818–8824, 2025. (Scopus, SCI-I.F. 2.1 Q2)
44. U. Abel, **Prashantkumar Patel**, An asymptotic expansion for the Mittag-Leffler operators, Indian Journal of Pure and Applied Mathematics, 2025 (Scopus IF 0.5)
45. U Abel, **Prashantkumar Patel**, An asymptotic expansion for an integral variant of the Wright operators, Modern Mathematical Methods, 4(1) 38-49, 2026 ISSN 3023-5294.
46. **Prashantkumar G. Patel**, Generalized Gamma-Wright Integral Operators: Approximation Properties, in Proc. Int. Conf. on Mathematical Advances and Applications, vol. 2, no. 1, pp. 40–48, 2025, ICOMAA 2025.
46. Harsh Kothari, Shruti Kariya, **Prashantkumar Patel**, "Uniform Approximation with Lupaș Operators Preserving Exponential Functions," International Conference on "Synergetic Development through Smart Technologies & Digital Transformation- 2025 (SDSTD2025)," 25-26 June, 2025, Book Chapter: 716-721, Victorious Publishers (India)
46. A. I. Jikani, **Prashantkumar G. Patel**, J. G. Mehta, Cryptography Beyond Latin Scripts: A Study of Symmetric Key Methods in Gujarati, Eternity: research, evaluation and analysis. 1, January 2026, 235-247, Green Flag Foundation. Conference Proceedings.
47. U. Abel and **Prashantkumar Patel**, Convergence of an integral variant of the Wright operators in Lp-spaces, Contemporary Approaches to Approximation of Operators—Approximation Theory and Mathematical Methods (Book Chapter) published in Birkhäuser's Trends in Mathematics series, which is indexed with SCOPUS, Mathematical Reviews, zbMATH-accepted
48. **Prashantkumar G. Patel**, O. Agratini and M. Craciun, Convergence of Szasz-Mirakyan-Durrmeyer Operators Having Laguerre-type Weight, Contemporary Approaches to Approximation of Operators—Approximation Theory and Mathematical Methods (Book Chapter) published in Birkhäuser's Trends in Mathematics series, which is indexed with SCOPUS, Mathematical Reviews, zbMATH-accepted
49. H. B. Parmar, **Prashantkumar G. Patel**, Investigating the Quantitative Behavior of Kantorovich Fractional Operators in q-Numbers, Approximation Theory and Special Functions-accepted
50. H. B. Parmar, **Prashantkumar G. Patel**, Approximation and Shape-Preserving Properties of Non-Linear Max-Product Jain-Pethe Operators, Romanian Journal of Mathematics and Computer Science (Scopus index)—accepted
51. **Prashantkumar G. Patel**, Feed-Forward Neural Network Approximation and Quasi-Interpolation via a Mittag–Leffler Sigmoidal Kernel, Springer contributed volume "Neural Network Approximation with Applications in the AI Age" .—accepted
52. **Prashantkumar G. Patel**, Convergence of Szász-Mirakyan-Laguerre-Durrmeyer operators in L^p Space, Studia Universitatis Babe-Bolyai Mathematica. -accepted

Under Reviews

1. **Prashantkumar Patel**, On Positive Linear Operators involving Wright function.
2. **Prashantkumar Patel**, On Kantorovich-Mittag-Leffler operators based on q-integers.
3. **Prashantkumar Patel**, Simultaneous Approximation of Operators involving Wright Function.

4. P. Dhanwani, Harun Karsli, **Prashantkumar Patel**, Hypergeometric-Karsli-Kantorovich Operators and their Approximation Properties
5. H. B. Parmar, **Prashantkumar Patel**, A Fractional Approach to Modifie Mittag-Lffler-Kantorovich Operators and Their convergence Properties
6. P. Dhanwani, **Prashantkumar Patel**, Composite Operators and Their Differences Involving the Hypergeometric Distribution

Invited Lectures

♣ I invite you to visit my website for more information on my invited lectures: `https://sites.google.com/view/prashantkumarpatel/invited-lectures`.

Events Organized

♠ I invite you to visit my website for more information about events organized by me: `https://sites.google.com/view/prashantkumarpatel/event-organized`.

Workshop Attended

- I invite you to visit my website for more information about workshop attended: `https://sites.google.com/view/prashantkumarpatel/workshop-attended`.

Subject Taught

Undergraduate

- Analysis
- Complex variables & Fourier Series
- Mathematical Programming
- Linear Algebra
- Number Theory
- Cryptography
- Advance Calculus
- Coordinate Geometry
- Calculus
- Matrix Algebra

Postgraduate (M.Sc. (Mathematics))

- Ordinary Differential equations
- Partial Differential equations
- Advanced Linear Algebra
- Mathematical Methods
- Topology
- Functional Analysis
- Graph Theory
- Complex Analysis
- Approximation Theory

Postgraduate (M.Sc. (Big Data Analytics))

- Computing for Data Sciences
- Foundations for Data Sciences

Awards & Recognition

1. GSA Postgraduate Teachers Mathematical Science Award, Gujarat Science Academy (GSA), 2024.
2. 1st Rank Award for Best Presentation in Graph Theory, Gujarat University, Ahmedabad, 2026.
3. Best Presenter Award (Faculty Category), Science & Humanities Department, LDRP Institute of Technology & Research, Gandhinagar, 2025 for "SVD-Based Image Compression," National Short-Term Training Program on Linear Algebra for Machine Learning, 1–5 December 2025.
4. Prof. A. R. Rao Youth Talents Award, Prof. A. R. Rao Foundation, and Gujarat Ganit Mandal.
5. SERB International Travel Support (ITS) Scheme / ANRF Grant for participation in the ATSF 2024 Conference, Turkey, 4–7 September 2024.
6. SEED Money Research Grant, Sardar Patel University, for the project "On Integral Generalization of Mittag-Leffler Operators" (2022–2024).

7. Best Researcher Award (2018) – Awarded by Raghuveer Chaudhari at St. Xavier's College (Autonomous), Ahmedabad in recognition of outstanding research contributions.
8. Second Prize in Academics – NCC Officer Training (Naval Wing) – Secured 2nd position among all senior cadets during the 9-week NCC Officer Training (conducted in two phases) at Officers Training Academy Kamptee. Award presented by I. J. S. Hundal.

Interests

Sport	Swimming, Running, Cycling, Water Polo at University level
GGM	Treasurer, Gujarat Ganit Mandal (GGM) between 2018-25. Joint-Treasurer of GGM between 2017-18. Trustee of GGM from 2026.
NCC	Academic NCC Officer (ANO) from 1 Guj. NAVAL Unit (2014-21), From National Cadet Crops earn 'B' & 'C' Certificates NAVAL Wing
Mountaineering	Mountaineering Basic, Advanced and Coaching Courses from Government Institution
Yoga	Basic Yoga Course from Nakulish Yoga Vidhyalaya
CD	Civil Defense Courses
Acting	Claimed Second Rank in Mono Acting