Resume

PERSONAL DETAILS

Name:	**Sanjay J Ghevariya**
Designation:	Assistant Professor, (since February 2008)
	Post Graduate Department of Mathematics,
	Sardar Patel University,
	Vallabh Vidyanagar, Anand-388 120.
Email:	sj_ghevariya@spuvvn.edu

EDUCATIONAL DETAILS

- ❖ **B.Sc. (85.00%) (Mathematics) (Sardar Patel University)**

- ❖ **M.Sc. (87.31%) (Mathematics) (Sardar Patel University)**

- ❖ **M.Phil. (89.20%) (Mathematics) (Sardar Patel University)**

- ❖ **Ph.D. (Financial Mathematics) (Sardar Patel University)**

- ❖ **Achievements:**

  - ❖ Qualified Joint Admission to M.Sc. (JAM) in 2004.

  - ❖ Graduate Aptitude Test in Engineering (**GATE**):
    Qualified in 2007 with all India rank **11**(Percentile: 99.57)
    Qualified in 2008 with Percentile: 96.92
    Qualified in 2009 with Percentile: 93.81

  - ❖ Selected for Ph.D. Programme at IIT Bombay in 2007.

  - ❖ Selected for National Board for Higher Mathematics (**NBHM**) Research Award in 2007conducted by Department of Atomic Energy, New Delhi.

  - ❖ Selected as Junior Research Fellow in 2007 at Institute of Mathematical Sciences (**IMSc**), Chennai.

  - ❖ National Eligibility Test (**NET**) for Lecturerships with Junior Research Fellowships (JRF) Qualified in Dec 2006, June 2007 and Dec 2007.

  - ❖ Gujarat State Eligibility Test for Lecturership(**GSET**) Qualified in July 2006.

AREA OF INTEREST

- ❖ Financial Mathematics: Financial Derivatives

PRIZES WON

- ❖ Minaxi Lalit Science Awards (Organised by Gujarat Science Academy) for getting top three positions at graduate level in Mathematics in 2004.

❖ Golden Jubilee Fund Award with two Gold Medals for standing First among all the students of Sardar Patel Universitry at graduate level in Mathematics in April 2004.
❖ Prof. J. A. Inamdar Prize for getting maximum marks in External Examination of all the students of Sardar Patel Universitry at graduate level in Mathematics in 2004-05.

PROGRAMMES ATTENDED

❖ Mathematics Training and Talent Search Programme (Sponsered by National Board for Higher Mathematics) in 2003(May 26-June 14) and 2004(May 17-June 12) at Mysore.
❖ Workshop on Problem Solving in Mathematics (Sponsered by GUJ COST) in Dec 2007 at Department of Mathematics, Sardar Patel University.
❖ International Conference of Mathematicians (ICM) 2010 during 19-27 Aug 2010 at Hyderabad.
❖ An Orientation Programme at Academic Staff College, V.V. nagar from 01 – 28 February 2010.
❖ National seminar on "Analysis, Geometry, and Applications" organized by department on 4th to 6th March 2010 under UGC-SAP-DRS-II.
❖ '7th Short Term Course in Research Methodology (All Subjects)' sponsored by UGC at Academic Staff College during 6-11 February 2012
❖ Refresher Course in Mathematical Sciences (MD) at Academic Staff College, V.V. nagar from 19 Nov 2012 to 09 Dec. 2012.
❖ Refresher Course in ICT Applications and Soft Skills (ID) at Academic Staff College, V.V. nagar from 05 Sep 2015 to 27 Sep 2015.
❖ International Faculty Development Programme at Academic Staff College, V.V. nagar from 01 -02 August 2017.
❖ One day Workshop on "NACC Preparation: The Road Ahead" organized by IQAC, SPU on 30th August 2018.
❖ 'International Conference on Banach Algebras, Harmonic Analysis, and Operator Theory' held at Department of Mathematics, SPU during 20-22nd November 2018.
❖ '3rd Faculty Development Programme: Motivation for Quality and Impactful Research (Science)' at HRDC, SPU, VVNgar form 03-07 December 2018.

TALK DELIVERED

❖ Two sessions in the workshop on Problem Solving in Mathematics on Advanced Algebra, Analysis and Topology in Feb 2008.
❖ Two sessions in the workshop on Problem Solving in Mathematics and Related Areas on Financial Mathematics and Probability Theory in Jan 2009.
❖ Two sessions in the workshop "Problem Solving in Mathematics" on 28th January to 3rd February 2010 conducted by the department.
❖ One session in the workshop "Problem Solving in Mathematics" on 20th to 26th December 2011 organized by Department of Mathematics, SPU,V.V.Nagrar.
❖ One session in the workshop "An Art of Problem Solving in Mathematics" on 5th to 11th January 2013 organized by Department of Mathematics, SPU,V.V.Nagrar.
❖ One invited talk in the State Level Seminar on Applications of Mathematics on 29th January 2013 at N. V. Patel College of Pure and Applied Sciences, V.V.Nagrar.
❖ One guest lecture delivered to B.Com. students on 12th February 2013 at V. Z. Patel Commerce College, Anand.

- ❖ One guest lecture delivered to B. B. A. students on 13th February 2013 at V. Z. Patel Commerce College, Anand.
- ❖ One session in the workshop "An Art of Problem Solving in Mathematics" on 16th to 22nd January 2014 organized by Department of Mathematics, SPU,V.V.Nagrar.
- ❖ One session in the "National Workshop on Problem Solving Techniques in Mathematics" during February 21 – 26, 2015 organized by Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda.
- ❖ Resourse person on Reasoning (including mathematics) during 1st coaching programme on paper of NET/SET held during September 6, 13, and 17, 2015 organized by NET/SET coaching centre, S P University.
- ❖ One expert lecture on "Fundamentals of Differential Equations" in the TEQIP-II sponsored 05 days' (May 30 to Jun 3, 2016) STTP on "Mathematical Tools and Techniques for Engineering Research" organized by General Department of Government Engineering College, Gandhinagar.
- ❖ One session in the workshop "An Art of Problem Solving in Mathematics" on 25th to 30th January 2017 organized by Department of Mathematics, SPU,V.V.Nagar.
- ❖ Two sessions in the workshops "Problem Solving in Techniques in Mathematics" at and by department of mathematics V. S. Patel College of Arts and Science, Bilimora during 23-26 May 2017.
- ❖ One Popular lectured delivered at V. S. Patel College of Arts and Science, Bilimora on 16th August 2017.
- ❖ One session in the "National Workshop on Problem Solving Techniques in Mathematics-II" during November 27 – December 01, 2017 organized by Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda.
- ❖ One session in the workshop "National Workshop on Problem Solving in Mathematics-IX" during 02-07 May 2018 organized by Department of Mathematics, SPU, V. V. Nagar.
- ❖ One session in "Summer School in Mathematics" during 20th May to 2nd June 2018 organized by St. Xavier's College, Ahmedabad.
- ❖ One popular talk on "Applications of Group Theory in Number Theory" at V. S. Patel College of Arts and Science, Bilimora on 28th July 2018.
- ❖ One session in one-day national seminar on "Keys to Prepare for CSIR-NET Mathematical Sciences Examination" at Vadodara Institute of Engineering, Vadodara on 4 August 2018.
- ❖ Three sessions in the state level workshop on LATEX at V. S. Patel College of Arts and Science, Bilimora during 24-12-2018 to 25-12-2018.
- ❖ One session in "5th State Level Workshop on Problem Solving and Enrichment in Mathematics" at St. Xavier's College, Ahmedabad during 26th Dec. to 29th Dec. 2018.
- ❖ Two sessions in "Prof. P. C. Vaidya Second Summer School in Advanced Mathematics" during 18th May to 31st May 2019 organized by St. Xviers College, Ahmedabad.
- ❖ One session in Refresher course in Mathematics and Statistics at UGC-HRDC, SPU, VVNagar during September 2019.
- ❖ One session in the "Workshop on Problem Solving in Mathematics-X" during 17-22 February 2020 organized by Department of Mathematics, SPU, V. V. Nagar.
- ❖ One session in the 58th Annual Conference of Gujarat Ganit Mandal during 26-29 December 2021 held at M. N. J. Patel high school, Surat.

M.Sc. Project Guided

- ❖ One M.Sc. student completed his M.Sc. project entitled "Various B-S-M Formulae and Portfolio Management" supported by UGC-SAP-DRS grant under my guidance in 2010.
- ❖ Two M.Sc. students completed their M.Sc. projects entitled "Futures Markets and Futures Options" and "Probability Theory and Cox – Ross- Rubinstein Model" supported by UGC-SAP-DRS grant under my guidance in 2012.

Research Guidance

- ❖ M.Phil. dissertation entitled 'A Generalization of BSM Model of ML-Payoff Function' completed by Miss Dhara R. Thakkar in 2019.
- ❖ One student pursuing Ph.D. under my guidance.

Presented Paper

- ❖ I have participated and presented a paper in the symposium of Innovations in Science - SPU Research Scholars Meet during 8-9 January 2012 at SPU, V.V.Nagar.
- ❖ I have attended and presented a paper entitled "European Option Pricing Formulas for Modified Log Pay-off Function" in the National Seminar on "Advances in Mathematics: Historical Developments & Applications" from 9-11 January, 2012, organized by Department of Mathematics, MBICT, New V.V.Nagar.
- ❖ I have attended and presented a poster entitled "European Option Pricing Formulas" in the National Conference on "Interdisciplinary Perspectives: Defence Studies, Earth System Science and Bio – Medical Science (IPDEB-2013)" during 15-17 November 2013 at Center for Interdisciplinary Studies in Science and Technology (CISST), SPU, V.V.Nagar.
- ❖ I have attended and presented a poster entitled "European Option Pricing Formulas" in the National Conference on "Interdisciplinary Perspectives: Defence Studies, Earth System Science and Bio – Medical Science (IPDEB-2013)" during 15-17 November 2013 at Center for Interdisciplinary Studies in Science and Technology (CISST), SPU, V.V.Nagar.
- ❖ I have attended and presented a paper entitled "Comparisons of three BSM Formulas with Graphs" in the national seminar on "Analysis, Geometry and Applications" held in the Department of Mathematics, Sardar Patel University on 17-18 February 2014.
- ❖ I have attended and presented a paper entitled "Analysis of BSM Formulas" in the national seminar on "Functional Analysis and Harmonic Analysis" held in the Department of Mathematics, Sardar Patel University on 16-18 January 2017.
- ❖ I have attended and presented a paper entitled "A Generalization of Black Scholes Formulas with Discrete Dividend" in Online International Conference on "Recent Trends in Science, Humanities & Engineering" held at Seth Gyaniram Bansidhar Podar College, Nawalgarh, Rajasthan on 18-19 June 2021.
- ❖ I have attended and presented a paper entitled "A Generalization of Black Scholes Formula for Modified Log Payoff Function Using PDTM" in International Virtual Conference On Recent Applications of Mathematical Sciences held at Department of Mathematics & Statistics, University College of Science, MohanlalSukhadia University, Udaipur on 15-16 July 2021
- ❖ I have attended and presented a paper entitled "Black Scholes Models Using HPM" in Online International Conference on "Recent Advancement in Science, Engineering, Management & Humanities" held at Government College, Degana, Nagaur, Rajasthan on 18-19 December 2021.

RESEARCH PAPERS

- ❖ Ghevariya, S. J. & Dedania H. V., Option Pricing Formulas for Fractional Polynomial Payoff Functions, International Journal of Pure and Applied Mathematical Sciences, 6 (1) (2013), 43-48.
- ❖ Ghevariya, S. J. & Dedania H. V., Option Pricing Formulas for Modified Log Payoff Function, International Journal of Mathematics and Soft Computing, 3 (2) (2013), 129-140
- ❖ Ghevariya, S. J. & Dedania H. V., Graphical Interpretation of Various BSM Formulas, Global Journal of Pure and Applied Mathematics, 13(9) (2017), 6107-6112.
- ❖ Ghevariya, S. J., BSM Option Pricing Formulas Through Probabilistic Approach, Mathematics Today, 32(June & December 2017), 31-34.
- ❖ Ghevariya, S. J., BSM European Put Option Pricing Formula for ML-Payoff Function with Mellin Transform, International Journal of Mathematics and its Applications, 6(2) (2018), 33-36.
- ❖ Ghevariya, S. J., BSM European Put Option Pricing Formula for ML-Payoff Function Through PDTM, Asian-European Journal of Mathematics, 13(1) (2020), 2050024(6 pages).
- ❖ S. J. Ghevariya, Analytical Solution of Fractional BSM Differential Equation for ML-Payoff Function Using GDTM, International Journal of Mathematics and its Applications, 7(3) (2019), 23-27.
- ❖ S. J. Ghevariya, Solution of BSM Differential Equation with Time Dependent Parameters for Standard Powered Option, International Journal of Mathematics and its Applications 7(3) (2019), 119-121.
- ❖ Ghevariya, S. J., An Improved Mellin Transform approach to BSM Formula of ML-Payoff Function, Journal of Interdisciplinary Mathematics, Talor and Francis Group, 22(6) (2019), 863-871.
- ❖ S. J. Ghevariya and D. R. Thakkar, BSM model for Generalized ML-Payoff, Journal of Applied Mathematics and Computational Mechanics, 18(4) (2019), 19-25.
- ❖ S. J. Ghevariya, PDTM Approach to Solve Black Scholes Equation for Powered ML-Payoff Function, Computational Methods for Differential Equations, (2021) (Accepted).
- ❖ S. J. Ghevariya, Homotopy Perturbation Method to Solve Black Scholes Differential Equation for ML-Payoff Function, Journal of Interdisciplinary Mathematics, Taylor and Francis Group, (2021) (Accepted).
- ❖ S. J. Ghevariya, Black Scholes formula for Standard Power European Options with Discrete Dividend Payment, (2021) (Communicated).

BOOKS

- ❖ Lecture Notes on Algebra. Some advanced topics of abstract algebra of M.Sc Programme in Mathematics (Author), Grin Verleg, Germany, 2017 with ISBN: 9783668590342.
- ❖ Lecture Notes on Mathematical Probability Theory (Author), Grin Verleg, Germany, 2020 with ISBN: 9783346162328.
- ❖ Business Mathematics and Statistics (Book Chapter), Sardar Patel University, VVNagar, 2021 with ISBN: 9789381386842.

I hereby declare that the above mentioned information is correct up to my knowledge.

Signature
(S. J. Ghevariya)