Title	Dr.	**First Name**	Sandhya	**Last Name**	Jain	**Photograph**

Designation	Associate Professor
Address (Campus)	Vivekananda College, University of Delhi
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Educational Qualifications	Ph.D., M.Phil., M.A.(Mathematics)

Degree	Institution	Year
Ph.D. (Mathematics)	University of Delhi	**2015**
M.Phil. (Mathematics)	University of Delhi	**2006**
M.A. (Mathematics)	Zakir Husain College, University of Delhi	**2003**
B.A.(H) (Mathematics)	Zakir Husain College, University of Delhi	**2001**

Career Profile

Designation	Duration
Associate Professor Assistant Professor	**6 years** **13 years**

Administrative Assignments
- Teacher-In-Charge, Department of Mathematics, Vivekananda College (One tenure of two years)
- Worked in various committees in different years, viz. NSS Programme Officer, Convener of Social Outreach & Community Development Committee, Admission Committee, Convener of Women Development Committee, Academic Development Committee, Planning and Proposal Committee, Refreshment Committee,
- Paper setting for various Delhi University examinations
- External Examiner in various colleges
- Member of the Committee of Courses for Under-Graduate Studies in the Department of Mathematics
- Organised many talks and webinars on different topics

Subjects Taught:
Differential Equations, Multivariate Calculus, Group Theory, Theory of Real Functions, Mathematical Modelling & Graph Theory, Probability and Statistics, Integral Transforms, Linear Analysis

Research Guidance: N/A

Publications profile:

1. Pankaj Jain and Sandhya Jain, "*Duality Principle of Sawyer Type: A Short Survey*", Conference Proceedings, "The 50, 70, 80,---- Conference in Mathematics", ISBN - 978-953-250-257-2

2. Sandhya Jain, Chandrani Basu and Pankaj Jain, "*Mellin transforms in connection with Wigner-Ville transform and linear canonical transform*", Integral Transform and Special Functions, 2025, https://doi.org/10.1080/10652469.2025.2451343

3. Sandhya Jain, Arun Pal Singh, Megha Madan and Pankaj Jain, "*Boundedness of Dunkl-Hausdorff operator for radially decreasing functions and monotone weights on $\mathbb{R}n$*", Journal of Mathematical Sciences, https://doi.org/10.1007/s10958-024-06994-5

4. Sandhya Jain and Pankaj Jain, "*Hausdorff and Dunkl Hausdorff operator in Lebesgue spaces for monotone functions and monotone weights*", positivity, 2022, **https://doi.org/10.1007/s11117-022-00962-6**

5. Sandhya Jain, Alberto Fiorenza and Pankaj Jain, *Boundedness of Dunkl-Hausdorff operator in Lebesgue spaces*, Rocky Mountain Journal of Mathematics, 51(2021), 2031-2044.

6. P. Jain, S. Jain, V.D. Stepanov, *LCT based integral transforms and Hausdorff operators*, Eurasian Mathematical Journal, 11(2020), 57-71.

7. Pankaj Jain and Sandhya Jain, *Generalized Convolution Inequalities and Application*, Mediterr. J. Math.,14 (2017), DOI 10.1007/s00009-017-0961-3.

8. Pankaj Jain and Sandhya Jain, *O'Neil Type Convolution Inequalities in Lorentz Spaces*, Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, 86(2016), 267–271.

9. Pankaj Jain and Sandhya Jain, *Weighted spaces related to Bochner integrable functions*, Georg. Math. J, 22(2015), 71-79.

10. Pankaj Jain, Sandhya Jain and Rajender Kumar, *On fractional convolution and distribution*, Integral Transforms and Special Functions, 26(2015), 885-899.

11. Pankaj Jain and Sandhya Jain, *Normability and duality in the two-dimensional Lorentz space*, Eurasian Mathematical Journal, 5 (2014), 79 – 91

12. Pankaj Jain and Sandhya Jain, *On Young type inequalities for generalized convolution inequalities*, Proc. A. Razmadze Math. Inst., 164 (2014), 45-61.

13. Pankaj Jain and Sandhya Jain, *On anisotropic weighted Sobolev inequalities*, Proc. A. Razmadze Math. Inst., 158 (2012), 57-65.

Conference organization/Presentations (in the last three years):

1. Presented a poster, entitled "**Boundedness of Hausdorff and Dunkl-Hausdorff operators**", in the Annual Conference 2023-2024, Indian Women and Mathematics (IWM), IISER Bhopal, during July 13-15, 2023.

2. Invited talk entitled "**On boundedness of certain Hausdorff-type operators**" in the International Conference of the Indian Mathematical Society held at MIT World Peace University, Pune, during Dec 23- 26, 2025.

Research Projects (Major Grants/Research Collaboration)

Team member of Indo-Russian S&T project entitled "*Classical Operators on Sobolev and Banach function spaces and quasiconformal analysis*", 2016- 2019, funded by Department of Science & Technology (PI: Dr. Pankaj Jain, South Asian University)

Awards and Distinctions: N/A

Other Activities:

Book Chapters/ Book:

1. Amita Sethi, Sandhya Jain, Monika Meena, "A Textbook of Vedic Mathematics", Maximax publisher, 2025, ISBN 978-81-967136-4-5

2. Three Chapters on Infinite Series in the book "Elements of Real Analysis", Department of Distance and Continuing Education, 2024, ISBN 978-81-19417-55-1

3. Four Chapters on Fourier Transforms in the book "Integral Transforms", Department of Distance and Continuing Education, 2025.

Foreign Visits

1. Visited Moscow, Russia under the Indo-Russian S&T project entitled "Classical Operators on Sobolev and Banach function spaces and quasi conformal analysis" during Jan $2^{nd} - 14^{th}$, 2017.

2. Visited the Czech Republic (Paseky) to participate and delivered a talk at the 44th Spring School on Analysis, *Function Spaces: Embeddings and Extrapolation X,* during May 28th - June 3rd, 2017.

3. Visited Moscow, Russia under the Indo-Russian S&T project entitled "Classical Operators on Sobolev and Banach function spaces and quasi conformal analysis" during April $2^{nd} - 14^{th}$, 2019.

Invited Talks/ Paper Presentations/ Conferences attended

1. Invited talk entitled "**On boundedness of certain Hausdorff-type operators**" in the International Conference of the Indian Mathematical Society held at MIT World Peace University, Pune, during Dec 23- 26, 2025.

2. Presented a poster, entitled "**Boundedness of Hausdorff and Dunkl-Hausdorff operators**", in the Annual Conference 2023-2024, Indian Women and Mathematics (IWM), IISER Bhopal, during July 13-15, 2023.

3. Presented an online paper, entitled "**Dunkl-Hausdorff operator**" in the 87th Annual Conference of the Indian Mathematical Society held at JNEC, MGM University, Aurangabad during Dec 4 - 7, 2021.

4. Presented a paper, entitled "**A relation between linear canonical cosine transform and Hausdorff operator**" in an International Conference on Mathematical Analysis and its Application held at South Asian University during December 14– 16, 2019.

5. Presented a poster, entitled "**Generalized Convolution Inequalities and Application**" in the 83rd Annual Conference of The Indian Mathematical Society held at Sri Venkateswara University, Tirupati, during Dec 12 – 15, 2017.

6. Presented a paper, entitled "**Weighted norm inequalities involving various convolutions**" in the 83rd Annual Conference of The Indian Mathematical Society held at Sri Venkateswara University, Tirupati, during Dec 12– 15, 2017.

7. A talk, entitled "Maths in Nature" at Vivekananda College under the program 'For the faculty by the faculty' on 7th Nov 2017.

8. A talk, entitled "**Banach space valued spaces of Lebesgue Type**" in the 44th Spring School on Analysis, "Function Spaces: Embeddings and Extrapolation X" held at Paskey nad Jizerou, Czech Republic during May 28- June 3, 2017.

9. A talk, entitled "**Two dimensional Hausdorff operator**" at Moscow, Russia, under the Indo-Russian S&T project entitled "Classical Operators on Sobolev and Banach function spaces and quasi conformal analysis" during April 2– 14, 2019.

10. Presented a paper, entitled "**Weighted spaces related to Bochner integrable functions**" in the 81st Annual Conference of The Indian Mathematical Society held at VNIT, Nagpur during Dec 27-30, 2015.

11. A talk, entitled "**Inequalities involving generalized convolutions and its applications**" in an International Conference on Function Spaces and Inequalities held at South Asian University during Dec 8-12, 2015.

12. Presented a paper, entitled "**Young type convolution Inequalities**" in an International Conference on Special Functions & Their Applications (ICSFA 2015) held at Amity University, Noida, during Sep 10-12, 2015.

13. A talk entitled "**Iterative Convolution Inequalities**" in the South Asian Mathematics Research Scholars Meet held at South Asian University during May 8-9, 2015.

Also, attended the following Conference/ Seminars/ Workshops:

1. One-day training programme on "*Evaluation Scheme for Academic Tracks in Fourth Year – NEP UGCF*" held on 16 October 2025, organized by Vivekananda College, University of Delhi.

2. Two days "*Enrichment Workshop for College Teachers (on new courses of UGCF under NEP-2020)*" on August 2, 2025 and August 4, 2025, organized by the Department of Mathematics, University of Delhi.

3. Training programme on "*NEP 2020 Orientation & Sensitization Programme*" organized by Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi, on 3-13 August 2024.

4. National workshop on *Skill enhancement at institutions of higher learning: training today for tomorrow* held at Kalindi College, University of Delhi during 7th- 13th Jan, 2019.

5. *International Meet on Analysis* held at the Department of Mathematics, University of Delhi on 24th Nov, 2018.

6. A guest lecture, *Functional Inequalities in Sobolev Spaces: From Isocapacitory Estimates to littlewood-Paley Theory* by Ali Tahri, University of Sussex, UK, held at South Asian University on 19th Nov 2018.

7. Seminar on *Quality Management Systems for College Administration* held at Vivekananda College on 12th Feb 2018.

8. A guest lecture on *Fourier analysis from a function space view-point* by Prof. Hans Feichtinger, University of Vienna, Austria, held at South Asian University on 30th Jan 2018.

9. Faculty Development Program *GST and Customs Law*, held at the Department of Commerce, Vivekananda College on 13th Jan 2018.

10. Conference *Analysis and its application* held at South Asian University and Dyal Singh College, University of Delhi during 9th – 11th Dec, 2017.

11. *Capacity Building Workshop on e-content creation in Mathematics* held at *the* Institute of Life Long Learning, University of Delhi on 28th Oct, 2016.

12. Workshop on *Indian women and Mathematics* held at the Department of Mathematics, University of Delhi, 2nd - 4th April 2015.

13. Workshop on *Trans-disciplinary training in Foundation Course (studio/virtual classes* held at CPDHE, University of Delhi during 7th – 13th May, 2014.

14. *National Seminar for Research Scholars* held at the Department of Mathematics, University of Delhi during 20th– 21st Sep, 2013.

15. Workshop on *Building Mathematical Ability (Foundation Course)* held at CPDHE, University of Delhi during 24th– 26th June, 2013.

16. Workshop on *Information Technology (Foundation Course)* held at CPDHE, University of Delhi during 12th – 14th June, 2013.

17. *Instructional Workshop on Applied Mathematics* held at the Department of Mathematics, South Asian University during 6th – 10th May, 2013.

18. International conference *The Legacy of Srinivasan Ramanujan* held at the Department of Mathematics, University of Delhi during 17th - 22nd Dec, 2012.

19. *Research Scholars' Seminar* held at the Department of Mathematics, University of Delhi during 18th – 19th March, 2010.

20. *ICT workshop for Capacity Building* held at ILLL during 3rd – 26th Feb, 2010.

21. National Conference on *Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries* held at University of Delhi during 30th – 31st Jan, 2010

22. *National Meet on History of Mathematical Sciences*, held at the Department of Mathematics, University of Delhi during 7th – 9th Jan, 2010.

23. *Pre-ICM International Convention on Mathematical Sciences*, held at the Department of Mathematics, University of Delhi during 18th -20th Dec, 2008.

24. *Advanced Training School in Mathematics for Lectures on Complex Analysis,* held at Bhaskaracharya Prtishthana, Pune during 14th -26th May, 2007.

25. National Symposium on *Functional Analysis, Optimization and Their Applications* held at Deen Dayal Upadhyaya College, University of Delhi during Jan 19th – 20th, 2007.

Membership of the Learned Societies

Indian Mathematical Society - Life Member