



# Dr. Shah Jahan

## Curriculum Vitae

### Education

2013–2018 **Ph.D. Mathematics**, *Faculty of Mathematical Sciences, University of Delhi, Delhi.*

with the Thesis Entitled "*K-Atomic Decompositions, Atomic Systems and Frames in Banach Spaces.*"

2011 – 2013 **M.Phil. Mathematics**, *Faculty of Mathematical Sciences, University of Delhi, Delhi, with first division.*

with the Dissertation Entitled "*Modular Frames and Riesz Bases in Hilbert  $C^*$ -Modules.*"

2008 – 2010 **M.Sc. Mathematics**, *University of Jammu, Jammu, with first division.*

2005-2008 **B.Sc.**, *Government Degree College Rajouri, Jammu, with first division.*

2005 **High Secondary School**, *JKBOSE, Hemaliyan Education Mission , Rajouri , Jammu.*

2003 **High School**, *JKBOSE, Hemaliyan Education Mission , Rajouri , Jammu.*

### Teaching Experience

☆ Presently, I am working as Assistant Professor in the *Department of Mathematics at Central University Of Haryana* since 6th of March 2020

☆ Had taught in *Ramjas college* in the Department of Mathematics as an Assistant Professor on adhoc basis during the following period:-

☆ From 21st January, 2019 to 20th April 2019.

☆ From 23rd April, 2019 to 5th March 2020.

☆ Had taught in *Daulat Ram college* in the Department of Mathematics as an Assistant Professor on adhoc basis during the following period:-

*Department of Mathematics, Central University of Haryana – Haryana-123031  
India*

☎ +91 828 571 7090

✉ [shahjahan@cuh.ac.in](mailto:shahjahan@cuh.ac.in), [chowdharyshahjahan@gmail.com](mailto:chowdharyshahjahan@gmail.com)

☆ From 9th January, 2019 to 20th January 2019.

## Area of Specilization

Functional Analysis, Frames Theory, Sampling Theory, wavelets Theory and its Applications.

## Courses Taught

Abstract Algebra, Advanced Complex Analysis, Elements of Analysis, Functional Analysis, Integral Equations and Calculus of Variation, Mathematics for Chemists, Numerical Methods, Real Analysis, TypeSetting in LATEX

## Research Guidance

Supervision of Doctoral Thesis Under Progress

02, ..

Supervision of Master Dissertations Completed

15, ..

## Publications

- 2020 Jahan, S., *Approximative  $k$ -atomic decompositions and frames in Banach spaces*, Arab Journal of Mathematical sciences, Vol. 26 No. 1/2, pp. 153-166.
- 2019 Poumai, K. T. & Jahan, S., *Atomic Systems for Operators*, International Journal of Wavelets, Multiresolution and Information Processing Vol. 17, No. 01, 1850066 (2019).
- 2018 Jahan, S. & Kumar, V., *Some Results on the Existence of Frames in Banach Spaces*, Poincare Journal of Analysis and Applications, Volume 2018(1), 25-33.
- 2018 Jahan, S., Kumar, V. & Shekhar, C., *Cone associated with frames in Banach spaces*, Palestine journal of mathematics, Vol. 7(2)(2018), 641-649.
- 2018 Poumai, K. & Jahan, S., *On  $k$ -atomic decompositions in Banach spaces*, Electronic journal of mathematical analysis and applications, 6(1), pp.183-197.
- 2017 Jahan, S. & Kumar, V., *On cones associated with Schauder frames*, Jordan journal of mathematics and statistics, 10(4), pp.265-280.
- 2017 Jahan, S., Kumar, V. & Kaushik, S.K., *On the existence of non-linear frames*, Archivum mathematicum, 53(2), pp.101-109.

## Paper Communicated

- 2020 Jahan, S., *Approximative Atomic Systems for Operators in Banach Spaces*.

## Editorial

Reviewer

☆ Reviewer at **Mathematical Reviews**, American Mathematical Society.

☆ Referee at , *Journal of Function Spaces*.

Membership in Professional Bodies

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India

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✉ shahjahan@cuh.ac.in, chowdharyshahjahan@gmail.com

☆ Member of **American Mathematical Society**.

## Faculty Development Programme

26th June to 1st July 2020 **One-Week Online Faculty Development Programme on “Development and Delivery of MOOCs and E-Content”** jointly organized by Central University of Haryana, Mahendergarh under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) and IQAC, Deshbandhu College, University of Delhi, New Delhi, ..

## Invited Talks

Gave Invited Talk in the Department of Mathematics, SPS, JNU,, with titled *"Atomic Systems for Operators and Approximative K-Atomic Decompositions in Banach Spaces"*, ..

## Paper Presentations

- 22-23 Feb 2019 Presented a paper titled “On the existence of strong Retro Banach frame in Banach spaces” in the National Conference on “Mini Symposium in Mathematics” organized by Deen Dayal Upadhyaya College, University of Delhi, ..
- 13-14 Dec Feb 2018 Presented a paper titled, “Approximative K-Atomic Decompositions and Frames in Banach Spaces” in the ‘5th Annual Conference in Mathematics on Recent Development in Algebra and Analysis’, Department of Mathematics G.G.M Science College, Jammu, Constituent College of Cluster University of Jammu, ..
- 19-20 Feb 2018 Presented a paper titled, “ On K-Atomic Decompositions in Banach Spaces” in the ‘International Conference on Applicable Mathematics’, New Delhi, India organized by Department of Mathematics Motilal Nehru College, University of Delhi, ..
- 17-18 Feb 2018 Presented a paper titled, “On Cones Associated with Schauder Frames in Banach Spaces ” in the ‘International Conference On Recent Advances in Mathematics’, organized by Department of Mathematics Aggarwal College Ballabgarh, Faridabad, ..
- 14-20 Dec 2017 Presented a paper titled, “Atomic Systems for Operators” in the ‘International Workshop on Wavelets, Frames and Applications-III’, organized by the Department of Mathematics, Kirori Mal College, University of Delhi, ..
- 1-2 May 2017 Presented a paper titled, “Cones Associated with Frames in Banach Spaces” in the ‘Research Scholar Seminar and Annual Conference of the Society of Mathematical sciences’, organized by Department of Mathematics, University of Delhi, ..
- 13-14 Feb 2017 Presented a paper titled, “Some Results on the Existence of Frames in Banach Spaces” in the ‘International Conference on Recent Advances in Pure and Applied Mathematics’, organized by the Department of Mathematics and Statistics, Mohanlal Sukhadia University, Udaipur, ..

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- 8-11 Feb 2018 Presented a paper titled, "On the Existence of Non-Linear Frames" in the 'International Conference on Applicable Analysis', organized by the Department of Mathematics, Shaheed Bhagat Singh College, University of Delhi, ..
- 25-27 Feb 2016 Presented a paper titled, "Schauder Frames for the Tensor Product of Banach Spaces" in the 'National Workshop on Analysis, Differential Equations & Applications', organized by the Department of Mathematics and Statistics, Mohanlal Sukhadia University, Udaipur, ..
- 24-30 Dec 2014 Presented a paper titled, "Frames in Krein Spaces " in the 'International Workshop on Wavelets, Frames and Applications-II', organized by the Department of Mathematics, Kirori Mal College, University of Delhi, ..
- 2009 Presented a paper titled, " Application of Sylow Theorem" in the '18th One Day Students Conference' Organized by Department of Mathematics University of Jammu, ..

### Conferences/Workshops Attended

- 20-24 March 2021 Participated in One-Week Online National Workshop on " Applications of Mathematical and Statistical Tools", jointly organized by Department of Mathematics, Department of Statistics and School of Education under the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and teaching (PMMMNTT), Central University of Haryana, Mahendergarh, ..
- 10-24 March 2021 Participated in Lecture Series on "Methodology in Social Sciences", organized by Remedial Coaching Scheme(Under Equal Opportunity Cell), Central University of Haryana, Mahendergarh, ..
- 27Nov - 3Dec 2020 Attended a 7 Days online workshop On "Harmonic Analysis and Its Applications", organized by Faculty of Mathematical Science Ferdowsi University of Mashhad, Islamic Republic of Iran, ..
- 07-08 July 2020 Attended a Two Days International Webinar On "Artificial Intelligence and Machine Learning", organized by Department of Computer Science, Baba Farid College, Bathinda , ..
- 22-23 Feb 2019 "Mini Symposium in Mathematics", organized by Deen Dayal Upadhyaya College, University of Delhi, ..
- 24-28 Apr 2017 Attended a training Course on "Introduction to Matlab", organized by Delhi University Computer Centre University of Delhi, ..
- 4th Dec 2014 Participated in the Workshop on Information Literacy and Competency organized by Delhi University Library System, University of Delhi, ..
- 07-08 Mar 2014 Participated in National Conference on Advances in Mathematics held at Hansraj college, University of Delhi, ..
- 20-21 Sep 2013 Participated in the National Seminar for Research Scholars, organized by the Department of Mathematics, University of Delhi, ..
- 17-22 Dec 2012 Participated in the International Conference 'The Legacy of Srinivasa Ramanujan", organized by the University of Delhi, ..

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- 26th Mar-7th Apr 2012 **Participated in Advance Training in Mathematics School in Real Analysis and Measure Theory, ..**
- 24-25 Mar 2012 **Participated in the National Seminar for Research Scholars Department of Mathematics, University of Delhi, ..**

## Achievements

- Best Paper Presentation award 2017 **Paper titled, “On Cones Associated with Schauder Frames in Banach Spaces” in the ‘International Conference On Recent Advances in Mathematics’, organized by Department of Mathematics Aggarwal College Ballabgarh, Faridabad, ..**
- Best Paper Presentation award 2016 **Paper titled, “Schauder Frames for the Tensor Product of Banach Spaces” in the ‘National Workshop on Analysis, Differential Equations & Applications’, organized by the Department of Mathematics and Statistics, Mohanlal Sukhadia University, Udaipur, ..**

## Positions of Responsibility

- Coordinator** *Appointed as Department Placement Coordinator, w.e.f. 31-08-2021*
- Organizing Member** *One Week Online National workshop on Applications of Mathematical and Statistical Tools’ during March 20-24, 2021, jointly organized by Department of Mathematics, Department of Statistics and School of Education under the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and teaching (PMMMMNMTT), Central University of Haryana, Mahendergarh*
- Volunteer** *International Workshop on Wavelets, Frames and Applications-III’ during 14th-20th December, 2017 organized by the Department of Mathematics, Kirori Mal College, University of Delhi*
- Volunteer** *International Workshop on Wavelets, Frames and Applications-II’ during 24th-30th December, 2014 organized by the Department of Mathematics, Kirori Mal College, University of Delhi*
- Volunteer** *International Conference on “The Legacy of Srinivasa Ramanujan” during 17th-22nd December, 2012 organized by the University of Delhi*
- Mess Secretary** *Gwyer Hall Students’ Union, University of Delhi, April, 2012 to July 2012*

## Other Activities

- ☆ Participated in Innovation Projects in *Antardhwani 2015*
- ☆ Taught blind students in college and hostel through *Enabling Unit 2014-2015*

## Computer Skills

- Familiar OSs** Windows: 10,8
- Languages** Latex, Mathematica, Matlab, MS Office

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## Languages

☆ English, Hindi, Urdu, Gojri, Punjabi, Dogari

## References

1. Dr. Akram Aldroubi  
Professor, Department of Mathematics Vanderbilt University, USA.  
Email: akram.aldroubi@gmail.com
2. Dr. S. K. Kaushik  
Associate Professor, Department of Mathematics  
Kirori Mal College, University of Delhi, Delhi, India  
Email: shikk2003@yahoo.co.in

## Declaration

I hereby affirm that the information provided in this document is accurate and true to the best of my knowledge. (Shah Jahan)