



St. Xavier's College, Simdega

Dhawaipani, Khijri, Simdega, Jharkhand-INDIA-835235

Faculty Profile



Name of supporting Staff	: Dr.Alamgir Hossain
Gender	: Male
Mobile Number	: +91 9330955905
Email ID	: hossain4791@gmail.com
Name of Department	: Department of Mathematics
Academic Designation	: Assistant Professor
Adm. Designation	: Research & Development (RnD) Office
Level of Teaching	: Undergraduates/Postgraduates
Name of job location	: Room no. 518
Academic Qualification	: M.Sc., Ph.D.

Education:

1. Ph.D. Mathematics, Presidency University, Kolkata, 2024.
2. UGC-NET-JRF (Mathematical Sciences), 2018.
3. CSIR-NET-JRF (Mathematical Sciences), 2018.
4. M.Sc. in Mathematics, Presidency University, Kolkata, 2015.
5. B.Sc., Mathematics (Hons), University of Calcutta, Kolkata, 2012.

Achievements & Awards:

1. Merit-Cum-Means (MCM) scholarship by WBCHE, India, 2009-2012
2. M.Sc. First Class 1st (Gold Medalist), 2015.
3. Graduate Aptitude Test in Engineering (GATE), Mathematics, 2017.
4. National Board of Higher Mathematics (NBHM), exam qualified, 2017.
5. Tata Institute of Fundamental Research (TIFR), exam qualified, 2018.

Research Papers Published:

1. **A. Hossain, M. N. Akhtar, and M. A. Navascués**, (2026), "Fractal approximations on the real projective plane," *Electronic Transaction on Numerical Analysis*, Volume 65, pp. 1-25, Link: https://doi.org/10.1553/etna_vol65s1.
2. **Alamgir Hossain, Jorge Buescu**, (2025), "Non-affine fractal hypersurfaces: construction and dimensions," *Journal Fractal Geometry*, Volume 12, No. 3/4, pp. 395-415, Link: <https://doi.org/10.4171/jfg/166>.
3. **A. Hossain, M. N. Akhtar, and M. A. Navascués**, (2024) "Fractal interpolation on the real projective plane," *Numerical Algorithms*, Volume 96, pp. 557–582, Link: <https://doi.org/10.1007/s11075-023-01657-z>.
4. **A. Hossain, M. N. Akhtar, and M. A. Navascués**, (2023), "Fractal dimension of fractal functions on the real projective plane," *Fractal & Fractional*, Volume 7, No. 7, pp. 510, Link: <https://doi.org/10.3390/fractalfract7070510>.
5. **M. N. Akhtar and A. Hossain**, (2022), "Stereographic metric and dimensions of fractals on the sphere," *Results in Mathematics*, Volume 77, No. 6, pp. 213, Link: <https://doi.org/10.1007/s00025-022-01745-x>.

Research Papers Preprints:

1. **Alamgir Hossain**, (2006), "Study of Attractors and Fractal Functions on the Product Spaces and Dimensional Aspects", (communicated to a journal for possible publication), Link: <https://arxiv.org/abs/2603.12890>.
2. **A. Banerjee, A. Hossain and Md. N. Akhtar**, (2026), "Quantization Dimension of 1-variable Random Self-Similar Measures," (communicated to a journal for possible publication), Link: <https://doi.org/10.48550/arXiv.2512.19628>.
3. **A. Hossain, N. Attia, A. Banerjee and Md. N. Akhtar**, (2025), "Quantization of Cantor-like set on the real projective line," (communicated to a journal for possible publication), Link: <https://doi.org/10.48550/arXiv.2405.09954>.

Chapter(s) in Books:

Paper Presented in Seminar/Conference (National/International):

- 1) Paper Presented: **"International Society in Quantization, Geometry, and Dynamics"** ISQGD-A Hybrid International Platform in Quantization, Geometry, and Dynamics. Advancing Mathematics from K-12 Education of Higher Research. February 21-22, 2026-ISQGD-SSo2-Fractal Interpolation and Iterated Function Systems, February 21, 2026 | 7:30-8:00 AM (US Central).
- 2) Paper Presented: **"Conference on Functional Analysis and Fractals, Organized by the Department of Applied Sciences,"** Indian Institute of Information Technology Allahabad, India during February 16-18, 2024."
- 3) Paper Presented: **"16th International Conference MSAST 2022,"** December 21-23, 2022, organized by the Institute IMBIC, India.
- 4) Paper Presented: **"International Conference on Nonlinear Applied Analysis and Optimization 2021,"** Department of Mathematical Sciences, Indian Institute Technology (BHU), Varanasi, India during December 21-23, 2021.

Attended Seminar/ Conference/ Workshop:

- 1) Participated, **"(GIAN course) Fractal Geometry Measure Theory and Applications."**Held in the Department of Mathematics at Indian Institute Technology Madras, India, during December 07 to 22, 2023.
- 2) Participated, **"Recent Advances in Mathematics and its Application"** Held on March 17, 2023 at the Department of Pure Mathematics, University of Calcutta, India.
- 3) Participated, **"Workshop on Fractal Geometry and Related Fields"** Held at Indian Institute of Information Technology Allahabad, India during September 25, 2022 to October 01, 2022.

Books Edited:

Guest Lectures / Special Lectures Delivered:

- 1) **Teaching Fellow**, at the department of Mathematics, Ashoka University, Sonapat, Haryana, India, from 18 August to 31 December, 2025. Courses:
 - i. Multivariable Calculus
 - ii. Quantitative Reasoning & Mathematical Thinking (QRMT).
- 2) Delivered **Tutorial** on “**Fractal Geometry and Related Fields**” Three-days’ Workshop on Fractal Geometry and related fields at the Department of Applied Sciences, Indian Institute Information Technology (IIIT), Allahabad, India, on 5-7 April 2024.
- 3) **Teaching Assistant**, Department of Mathematics, Presidency University, Kolkata, India. Courses:
 - i. Matric Space (During February to June, 2022)
 - ii. Linear Algebra I (During October 2020 to March 2021).

[Dr. Alamgir Hossain]