



DESIGNATION

Assistant Professor [Grade-II] & Head, Department of Mathematics, St. Xavier's College (Autonomous), Kolkata.

ACADEMIC QUALIFICATION

M.Sc-First Class First, PhD.

ADMINISTRATIVE RESPONSIBILITY

1. Member of the Women Cell Committee of the College.
2. Member of the College Magazine Committee.

CONTACT

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DR. SUCHARITA ROY

EDUCATION

M.Sc. in Applied Mathematics, University of Calcutta, Awarded the Degree of Doctor of Philosophy (Ph.D.) in Mathematics from the Department of Mathematics, University of Jadavpur for the thesis entitled "Infinite Series, Stochastic Processes, Function Optimization and the Bayesian Panacea".

TEACHING EXPERIENCE

- 17 years of experience in Undergraduate teaching
- Presently the Head of the Mathematics Department at St. Xavier's College (Autonomous), Kolkata and Assistant Professor Grade-II since January 2009.
- Full-time teacher in the Department of Business Mathematics & Statistics at J.D.Birla College during May 2007- December 2008.
- Full-Time Contractual Teaching Fellow (Tarak-Sudha Fellow) at Department of Mathematics, Bethune College, Kolkata during May 2006-April 2007.
- Part-Time teacher at St. Xavier's College, Department of Mathematics, Kolkata during September 2005-April 2006.

RESEARCH INTEREST

Interface between Bayesian and long-standing problems of Pure Mathematics, Probability and Stochastic Process.

PUBLICATIONS

1. Bayes Meets Riemann Again: Large Prime Discovery and Re-emergence of the Bone of Contention, arXiv:2510.09651, <https://arxiv.org/abs/2510.09651>.
2. The Bayesian Reflex: Online Learning as the Automatic Nervous System of Modern and Future AI, arXiv:2605.02825, <https://arxiv.org/abs/2605.02825>.
3. Efficacy of High-Altitude Biofilm-Forming Novel *Bacillus subtilis* Species as Plant Growth Promoting Rhizobacteria on *Zea mays* L, Applied Biochemistry & Biotechnology (2023), <https://doi.org/10.1007/s12010-023-04563-1>.
4. Statistical Analysis of the Effect of Bacterial Consortia in Soybean Production, Acta Scientific Microbiology ISSN: 2581-3226, Vol 5, Issue 5, May 2022.
5. Prediction of Possible Fifth Wave of Covid-19 Pandemic in West Bengal Based on Disease Spread Since Inception, Journal of Environment Science & Engineering, ISSN 0367-827 X, Vol 63 No. 3, P. 1262-1269, July 2021.
6. Bayes Meets Riemann – Bayesian Characterization of Infinite Series with Application to Riemann Hypothesis, International Journal of Applied Mathematics and Statistics, 2020, Volume 59, Issue number 2- Articles; Pages 81–128; DOI number: ISSN 0973- 1377 (Print); 0973-7545 (Online).
7. Function Optimization with Posterior Gaussian Derivative Process, arXiv:2010.13591, <http://arxiv.org/abs/2010.13591>.
8. Bayesian Appraisal of Random Series Convergence with Application to Climate Change, arXiv:2009.06229, <http://arxiv.org/abs/2009.06229>.
9. Bayesian Characterizations of Properties of Stochastic Processes with Applications, arXiv:2005.00035, <http://arxiv.org/abs/2005.00035>.

ARTICLES/ BOOK CHAPTERS

1. Written an article titled "Discovery of Irrationals: A Mathematical Disgrace" in the book titled "The Eureka Moment" edited by Dr.Trisha Maitra, Assistant Professor, Dept. of Mathematics, Prasanta Chandra Mahalanobis Mahavidyalaya, ISBN: 978-93-91741-52-5, First Edition: 2023.

PAPER PRESENTATION & PARTICIPATION IN CONFERENCE/ SEMINARS/ WORKSHOPS

1. Participated in the UGC sponsored short term programme on "Indian Knowledge System" organized by MMTTC, Gujarat University during December 15-21,2025.
2. Participated in a 6-day online faculty development programme on "Gender Sensitization and Protection of the Vulnerable (Towards Safer Higher Education Spaces)" organized by AIACHE during December 1-6,2025.
3. Participated in a 5-day online international faculty development programme "The Wellness Home: Pathways to Healthy Family Living" organized by the PG Department of Counselling Psychology during September 8-12,2025.
4. Participated in an online faculty development programme on "Generative AI Tools for Smart Teaching" organized by AIACHE during June 9-13,2025.
5. Participated in the faculty development programme organized by IQAC and supported by RUSA on "Integrating AI in Higher Education" during October 3- 6,2023.
6. Participated in the faculty development programme on Data Analysis using Python organized by E, & ICT Academy, IIT Kanpur during June 27-July 1,2022.
7. Participated in the two-day webinar on NAAC Assessment and Accreditation Process organized by IQAC & Academic Council of St. Xavier's College on 30th and 31st July, 2020.
8. Participated in the two-day International Conference on "Environmental Stewardship and Corporate Social Responsibility" held at St.Xavier's College, Kolkata during the time period February 22-23, 2013.
9. Participated in the Indo-Singapore Joint Workshop in "Role of Computational Biology in Advancing Modern Medicine (RCBAMM-2012)" held at Saha Institute of Nuclear Physics, Kolkata during the time period February 2-3, 2012.
10. Participated and successfully completed the Winter School held at the National Institute of Biomedical Genomics during the time period January 3-10,2012.
11. Attended and successfully completed the workshop on "Applications of "R" in Bioinformatics" at BIF center, Vidyasagar University during the time period December 19-20,2011.
12. Presented a paper entitled "Bayesian Characterisation of Random infinite series" at tenth International Triennial Calcutta Symposium on Probability and Statistics during the time period December 27-30,2018.
13. Presented a paper entitled "Bayesian Characterisation of

Infinite Series” at a one-day national seminar on contemporary developments in Mathematics and Mathematical Sciences held at the Gokhale Memorial Girls’ College, Kolkata on May 19,2018.

14. Presented a paper entitled “A Bayesian Approach to Determination of Convergence, Divergence and Oscillation of Infinite series with application to Riemann Hypothesis” at the Platinum Jubilee International Conference on Applications of Statistics during the time period December 21-23,2016.
15. Member of the organizing committee of the Inter College State Sports & Games Championship, 2024-25 Athletics, Football & Kho-Kho under the auspices of Education Directorate, Department of Higher Education, Govt. of West Bengal held during 17.03.2025-23.03.2025 at Sports Authority of India, Netaji Subhas Eastern Centre, Kolkata.
16. Member of the organizing committee of the Inter College State Sports & Games Championship,2019-20 under the auspices of Education Directorate, Department of Higher Education, Govt. of West Bengal held during 23.02.2020-29.02.2020 at Sports Authority of India, Netaji Subhas Eastern Centre, Kolkata.

RESOURCE PERSON

- Acted as a resource person for the faculty development programme on Learning Management System organized by St. Xavier’s College (Autonomous), Kolkata held on 19th March, 26th March & 2nd April,2025.
- Acted as a resource person in the two-day conference on the theme ‘Big Data Through Bayesian and Non-Bayesian Lenses’ consisting of a panel discussion on “Relevance of Bayesian and Non-Bayesian Philosophies for Big Data” during February 6-7,2025 organized by the Interdisciplinary & Statistical Research Unit, ISI, Kolkata.
- Invited Speaker in the one- day conference on the theme: “Interdisciplinary Science: Towards the Bayesian Panacea” organized by the Interdisciplinary & Statistical Research Unit, ISI, Kolkata on 24th December, 2024.
- Invited Speaker in the workshop on Statistical Learning and Bayesian Analysis with R organized by the Interdisciplinary & Statistical Research Unit, ISI, Kolkata during November 20-December 1, 2023.
- Invited speaker in the one-week faculty development

programme on Discrete Mathematics, Mathematical Modelling and Probability & Statistics organized by the Calcutta Mathematical Society during 14-20 June,2022.