Ayon Ganguly

Assistant Professor
Department of Mathematics
Indian Institute of Technology Guwahati

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Research Interests

Lifetime data analysis
Truncated data
Cure rate models
Censoring schemes
Competing risks
Step-stress life tests
Load sharing systems

Employment

Assistant Professor
Department of Mathematics
Indian Institute of Technology Guwahati
India — June, 2016 – present

Assistant Professor (on contract)
Department of Applied Sciences
Indian Institute of Information Technology Allahabad
India — January, 2026 – June, 2016

Visiting Faculty (Adhoc)
Department of Applied Sciences
Indian Institute of Information Technology Allahabad
India — December, 2014 – January, 2016

Post-doctoral fellow (Dr. DS Kothari Fellowship, UGC)
Department of Statistics
Sabitribai Phule Pune University, Pune
India — September, 2013 – December, 2014

Visiting Scientist
Indian Statistical Institute, Chennai
India — April, 2013 – September, 2013

Education

PhD in Statistics
Department of Mathematics and Statistics
Indian Institute of Technology Kanpur
India — 2013

Master of Science in Statistics
Department of Mathematics and Statistics
Indian Institute of Technology Kanpur
India 2008

Bachelor of Science in Statistics
Department of Statistics
Maulana Azad College, Kolkata
India 2006

Publications

Total Publications: 16

Ganguly, A., Sultana, F., Kundu, D., & Pal, A. (2026). A model based on mixture of weibull distributions for depending competing risks data in the presence of long-term survivors, and its application to malignant melanoma cancer data. *Statistics in Medicine*, *45*(6-7), e70466. https://doi.org/10.1002/sim.70466

Agrawal, A., Ganguly, A., & Mitra, D. (2025). Modelling competing risks data by a bivariate model with singularity originating from a shock model using the lehmann family of distributions. *Research in Statistics*, *3*(1), 2480181. https://doi.org/10.1080/27684520.2025.2480181

Agrawal, A., Mitra, D., & Ganguly, A. (2025). A model for failure-time data with two dependent failure modes and prediction of future failures. *Quality Engineering*, *37*(1), 1–14. https://doi.org/10.1080/08982112.2024.2321839

Biswas, S., Ganguly, A., & Mitra, D. (2025). Reliability analysis of load-sharing systems using a flexible model with piecewise linear functions. *Applied Stochastic Models in Business and Industry*, *41*(1), e2934. https://doi.org/10.1002/asmb.2934

Ganguly, A., Mitra, D., Balakrishnan, N., & Kundu, D. (2024). A flexible model based on piecewise linear approximation for the analysis of left truncated right censored data with covariates, and applications to worcester heart attack study data and channing house data. *Statistics in Medicine*, *43*, 233–255. https://doi.org/10.1002/sim.9954

Samanta, D., Ganguly, A., Gupta, A., & Kundu, D. (2019). On classical and Bayesian order restricted inference for multiple exponential step stress model. *Statistics*, *53*(1), 177–195. https://doi.org/10.1080/02331888.2018.1526285

Samanta, D., Kundu, D., & Ganguly, A. (2018). Order restricted Bayesian analysis of a simple step stress model. *Sankhya B*, *80*, 195–221. https://doi.org/10.1007/s13571-017-0139-9

Hanagal, D. D., Pandey, A., & Ganguly, A. (2017). Correlated gamma frailty models for bivariate survival data. *Communications in Statistics - Simulation and Computation*, *46*(5), 3627–3644. https://doi.org/10.1080/03610918.2015.1085559

Koley, A., Kundu, D., & Ganguly, A. (2017). Analysis of type-II hybrid censored competing risks data. *Statistics*, *51*(6), 1304–1325. https://doi.org/10.1080/02331888.2017.1358271

Kundu, D., Mitra, D., & Ganguly, A. (2017). Analysis of left truncated and right censored competing risks data. *Computational Statistics & Data Analysis*, *108*, 12–26. https://doi.org/10.1016/j.csda.2016.10.020

Samanta, D., Ganguly, A., Kundu, D., & Mitra, S. (2017). Order restricted bayesian inference for exponential simple step-stress model. *Communications in Statistics - Simulation and Computation*, *46*(2), 1113–1135. https://doi.org/10.1080/03610918.2014.992540

Ganguly, A., & Kundu, D. (2016). Analysis of simple step-stress model in presence of competing risks. *Journal of Statistical Computation and Simulation*, *86*(10), 1989–2006. https://doi.org/10.1080/00949655.2015.1096362

Ganguly, A., Kundu, D., & Mitra, S. (2015). Bayesian analysis of a simple step-stress model under weibull lifetimes. *IEEE Transactions on Reliability*, *64*(1), 473–485. https://doi.org/10.1109/TR.2014.2368871

Kundu, D., Samanta, D., Ganguly, A., & Mitra, S. (2013). Bayesian analysis of different hybrid and progressive life tests. *Communications in Statistics - Simulation and Computation*, *42*(9), 2160–2173. https://doi.org/10.1080/03610918.2011.654027

Mitra, S., Ganguly, A., Samanta, D., & Kundu, D. (2013). On the simple step-stress model for two-parameter exponential distribution. *Statistical Methodology*, *15*, 95–114. https://doi.org/10.1016/j.stamet.2013.04.003

Ganguly, A., Mitra, S., Samanta, D., & Kundu, D. (2012). Exact inference for the two-parameter exponential distribution under type-II hybrid censoring. *Journal of Statistical Planning and Inference*, *142*(3), 613–625. https://doi.org/10.1016/j.jspi.2011.08.001

Submitted Articles

Total submitted articles: 3

Biswas, S., Ganguly, A., & Mitra, D. (2026). A doubly-flexible model based on generalized gamma frailty for two-component load-sharing systems.

Biswas, S., Ganguly, A., & Mitra, D. (2026). Bayesian analysis of generalized freund's bivariate model for a two-component load-sharing system.

Sanyal, A., Kattumannil, S. K., & Ganguly, A. (2026). Time-dependent two-way partial AUC and partial youden index estimator for right censored data.

Book Published

Kundu, D., & Ganguly, A. (2017). *Analysis of step-stress models: Existing results and recent developments*. Elsevier/Academic Press.

Doctoral Students

Total doctoral students: 3

Dr. Shilpi Biswas
Thesis title: Statistical analysis of load-sharing systems
Role: Supervisor
Current Position: Independent researcher 2019 – 2025

Mr. Sourav Saha
Area: Statistical analysis of bivariate left truncated right censored data
Role: Co-supervisor (jointly with Prof. Debanjan Mitra, IIM Udaipur)
Current Position: Doctoral Student, IIT Guwahati 2022 – present

Mr. Arpan Sanyal
Area: AUC estimation for a ROC
Role: Co-supervisor (jointly with Dr. S. K. Kattumannil, ISI Channai)

Current Position: Doctoral Student, IIT Guwahati 2023 – present

Research Grant

Mathematical Research Impact Centric Support (MATRICS)
Title: Investigation of Statistical Aspects of Step-stress Life Testing
Funding agency: Science and Engineering Research Board, DST, Government of India
Amount: Rs. 6,60,000.00 2018 – 2021

Editorial Activity

Mathematical Methods of Statistics, Springer Nature
Role: Associate Editor 2025 – present

Computer Proficiency

Latex, R, C++

Language Proficiency

Bangla (Native), English, Hindi

References

Will be provided upon request.