

CURRICULUM VITAE



Dr. Shuvashree Mondal

Assistant Professor (Mathematics and Computing)
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Category: Gen

ACADEMIC QUALIFICATIONS:

Examination/Degree	Year	Board/Institution	Percentage/CPI
PhD (Statistics)	2014-2019 (Date of defense: 21 st Jan, 2019)	Department of Mathematics and Statistics, IIT Kanpur	10/10.
MSc (Statistics)	2011-2013	Department of Mathematics and Statistics, IIT Kanpur	8.9/10.
BSc (Statistics)	2008-2011	Department of Statistics, St. Xavier's College (Autonomous) Under University of Calcutta	72.7%
Class XII	2008	WBCHSE	87.0%
Class X	2006	WBBSE	88.5%

DOCTORAL RESEARCH DETAIL:

Thesis Title : On Joint Type-II Progressive Censoring Schemes

Thesis Advisor : *Prof. Debasis Kundu*,
Department of Mathematics & Statistics, IIT Kanpur.

Year of Award : 2019

CURRENT RESEARCH AREA :

Life Time Data Analysis under censoring, Distribution Theory, Robust Inference.

PROFESSIONAL EXPERIENCE:

Position	Duration	Place	Detail
Assistant Professor	15 th October, 2019 - present	Dept of Mathematics and Computing, IIT (ISM) Dhanbad	Teaching & Research
Visiting Scientist	1 st Jan, 2019 - 3 rd Oct, 2019	Indian Statistical Institute Kolkata	Post-Doctoral Research
Teaching Assistant	PhD Tenure	Department of Mathematics and Statistics, IIT Kanpur	Course-Applied Stochastic Process (PG-level), Probability Statistics (UG-level)
Online Teaching Assistant	PhD Tenure	Under Prof. Shalabh, Department of Mathematics and Statistics, IIT Kanpur	NPTEL Course-Linear Regression Analysis
System Engineer	July-December, 2013	TATA Consultancy Services, Hyderabad	Being Trained on Java Programming
Summer Internship	May-July, 2012	Survey Design and Research Division, National Sample Survey Office, Kolkata, Ministry of Statistics and Programme Implementation	

ACHIEVEMENT :

- Honorary Rosalind Quarterly Member of London Journals Press, UK.
- Cash Award for Publishing the First Paper in IIT Kanpur During PhD Tenure

COMPUTER SKILL:

- C, C++, Java, R, Python, SPSS, Latex.

MEMBER OF PROFESSIONAL BODY :

- Life membership at International Indian Statistical Association.
- Member in Caucus for Women in Statistics.

PHD THESIS GUIDANCE :

- Miss. Shanya Baghel. Some contributions to the reliability analysis of one-shot devices. In progress.
- Miss. Udit Goswami. Robust inference for panel data analysis- a multilevel framework. In progress.
- Miss. Anamika Gupta. Bivariate cure rate model. In progress.

M.TECH THESIS (IN DATA ANALYTICS) GUIDANCE :

- Mr. Ashutosh Kedar. LSTM with robust cost function. Completed. (Currently Working in Axtia)
- Mr. Suman Barman. Robust Predictive classification with neural networks and minimum density power divergence. Completed. (Currently Working in Tata Motors)

COURSE TAUGHT:

- UG Level: Statistical Methods; Probability & Statistics; Mathematics-II (Linear algebra, DE).
- PG Level: Statistical Inference; Machine Learning (Both Theory & Practical (Python)) ; Bio-informatics.
- JRF Course Work: Statistical Reliability Theory; Decision Theory

PUBLICATIONS:

1. Baghel, S. and Mondal, S., 2024. Analysis of one-shot device testing data under logistic-exponential lifetime distribution with an application to SEER gallbladder cancer data. *Applied Mathematical Modelling*, 126, pp.159-184.
2. Prajapati, D., Mondal, S. and Kundu, D., 2024. Two sample Bayesian acceptance sampling plan. *Annals of Operations Research*, pp.1-25.
3. Baghel, Shanya, and Shuvashree Mondal, 2024. Robust estimation of dependent competing risk model under interval monitoring and determining optimal inspection intervals. *Applied Stochastic Models in Business and Industry*.
4. Prajapat K., Mondal S., Mitra S. and Kundu D., 2023. Meta-analysis of exponential lifetime data from Type-I hybrid censored samples. *Communications in Statistics-Theory and Methods*, pp.1-19. (<https://doi.org/10.1080/03610926.2023.2169048>).
5. Mondal S* and Kundu, D. 2022. Exact Likelihood Ratio and Wald Tests for the Balanced Joint Progressive Censoring Scheme. *Applied Stochastic Models in Business and Industry*. 38(6), pp.1113-1126.
6. Shamanta D, Mondal S and Kundu D. 2022. Optimal Plan For Ordered Step-Stress Stage Life Testing. *Statistics*. 56(6), pp.1319-1344.
7. Kundu, D. and Mondal, S., 2021. Analyzing competing risks data using bivariate Weibull-geometric distribution. *Statistics*, 55(2), pp.276-295.
8. Prajapati, D., Mondal, S. and Kundu, D., 2021. Optimal decision-theoretic sampling plan for two exponential distributions under joint censoring scheme. *Applied Stochastic Models in Business and Industry*, 37(3), pp.560-576.
9. Pal, A., Mondal, S. and Kundu, D., 2021. A Cure rate model for exponentially distributed lifetimes with competing risks. *Journal of Statistical Theory and Practice*, 15(1), pp.1-24.
10. Mondal, S., Bhattacharya, R., Pradhan, B. and Kundu, D., 2020. Bayesian optimal life-testing plan under the balanced two sample type-II progressive censoring scheme. *Applied Stochastic Models in Business and Industry*, 36(4), pp.628-640.

11. Mondal, S. and Kundu, D., 2019. Exact inference on multiple exponential populations under a joint type-II progressive censoring scheme. *Statistics*, 53(6), pp.1329-1356.
12. Mondal, S. and Kundu, D., 2020. Inference on Weibull parameters under a balanced two-sample type II progressive censoring scheme. *Quality and Reliability Engineering International*, 36(1), pp.1-17.
13. Mondal, S. and Kundu, D., 2020. A bivariate inverse Weibull distribution and its application in complementary risks model. *Journal of Applied Statistics*, 47(6), pp.1084-1108.
14. Mondal, S. and Kundu, D., 2020. Bayesian inference for Weibull distribution under the balanced joint type-II progressive censoring scheme. *American Journal of Mathematical and Management Sciences*, 39(1), pp.56-74.
15. Mondal, S. and Kundu, D., 2020. On the joint Type-II progressive censoring scheme. *Communications in Statistics-Theory and Methods*, 49(4), pp.958-976.
16. Mondal, S. and Kundu, D., 2019. A new two sample type-II progressive censoring scheme. *Communications in Statistics-Theory and Methods*, 48(10), pp.2602-2618.
17. Mondal, S. and Kundu, D., 2019. Point and interval estimation of Weibull parameters based on joint progressively censored data. *Sankhya b*, 81(1), pp.1-25.

WORKSHOP & SEMINAR :

- Worked as resource person in “Summer School for Women in Mathematics and Statistics” during 1-3rd June, 2023, organized by ICTS-TIFR, Bengaluru
- Presented paper in 9th International Conference on Advances in Statistics, (E-Conference) on 20-22nd June, 2023, organized by Izmir University of Economics, Turkey.
- Invited speaker in “International Day for Women in Statistics and Data Science” a virtual conference organized by Caucus for Women in Statistics sponsored by Indian International Statistical Association on 11th October, 2022.
- Attended “Online Summer School-cum-Faculty Development Program on Advances in Signal Processing and Machine Learning” jointly organized by MHRD-Institution Innovation Council, Deen Dayal Upadhyaya College, University of Delhi & National Academy of Sciences India (NASI) during 20-26th July, 2020.
- “A Cure Rate Model For Exponentially Distributed Lifetimes Under Competing Risk Setup”, Presented in Tenth International Triennial Calcutta Symposium on Probability & Statistics Held During 27-30th December, 2018, in Department of Statistics, University of Calcutta.
- “Inference On Weibull Parameters Under A Two Sample Type-II Progressive Censoring Scheme”, Presented in Workshop on Reliability Theory and Survival Analysis Held During 28-30th November, 2018, in Indian Statistical Institute, Bangalore.
- Attended Workshop on “Reliability Theory and Survival Analysis” Held During 20-22th November, 2017, in Indian Statistical Institute, Kolkata.
- “Inference for Weibull Populations Under The New Balanced Joint Type-II Progressive Censoring Scheme”, Presented at Departmental Open House, 18th February, 2017, Department of Mathematics and Statistics, Indian Institute of Technology, Kanpur.
- “On Progressive Censoring Scheme For Two Samples” Presented in International Workshop of Reliability Theory and Survival Analysis Held During 3-5th November, 2016, in Department of Statistics, Savitribai Phule Pune University.

- “On Progressive Censoring Scheme For Two Samples” Presented at Departmental Open House, During 23-24th January, 2016, Department of Mathematics and Statistics, Indian Institute of Technology, Kanpur.

ADMINISTRATIVE ACTIVITIES :

- Working as DPGC member in the department of Mathematics and Computing, IIT (ISM) Dhanbad
- Working as one of the mentors of UG students in the department of Mathematics and Computing, IIT (ISM) Dhanbad
- Worked as convener of One Day Seminar on Statistics & Data Science on the Occasion of National Statistics Day on 29th June, 2022 in IIT (ISM) Dhanbad.
- Worked as member of Departmental Faculty Selection Committee in the department of Mathematics and Computing, IIT (ISM) Dhanbad
- Worked as member of Anti-Ragging Squad in IIT (ISM) Dhanbad.
- Worked as Faculty-In-Charge of Student Technology Clubs (Finance Technology Club)