Curriculum Vitae

SUBARNA BHATTACHARJEE

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https://scholar.google.com/citations?user=sozcmhUAAAAJ&hl=en

Dr. Subarna Bhattacharjee is working as Associate Professor in Department of Mathematics at Ravenshaw University Cuttack. She joined Ravenshaw University in November, 2012. Prior to that she served in School of Applied Sciences in KIIT University Bhubaneswar from Nov 2006 to Nov, 2012. She started her teaching career from School of Basic Sciences at MCKV Institute of Engineering, Liluah Howrah, West Bengal in Aug 2005 and continued till Nov, 2006. She received her M.Sc., and Ph.D. in Mathematics from Indian Institute of Technology Kharagpur in 2001 and 2007 respectively. She graduated from Presidency College Calcutta, Calcutta University with first class in B.Sc. (Mathematics Honours) in 1999. She did her school education from Kendriya Vidyalaya Cossipore, Calcutta.

During her research period in 2001-2005, she attended course works offered by Reliability Engineering Centre (presently named as Subir Chowdhury School of Quality and Reliability) and Industrial Engineering Department at IIT Khragpur. The title of her Ph.D. thesis is ``Study of System Failure by Probability and Possibility Distributions''. Her research interests include Reliability Theory, Machine Learning.

Research Interests:

The primary areas of focus involving my research interests are

1. Criterion for Ageing Analysis
2. Survival Analysis
3. Fuzzy Reliability Theory
4. Distribution Theory
5. Stochastic Orders

Our research field addresses the following queries:

FAQ's (Who is the interrogator ? It Matters …)

- ❑ What do people mean when they say one product is better than another ?
- ❑ How is it possible to establish a claim posed by a manufacturer that a Product 'X' is better than Product `Y'?
- ❑ Does conventional reliability theory work in every situation?
- ❑ At what point a machine needs recalibration by a quality control scientist at a manufacturing plant?
- ❑ How to quantify/metricize the ageing phenomena ?
- ❑ How to give mathematical modelling to a life testing data ?

Her Top Co-authors/research collaborators

- Professor Narayanaswamy Balakrishnan, Distinguished University Professor Department of Mathematics and Statistics McMaster University Hamilton, Ontario, Canada L8S 4K
- Prof. Magdalena Szymkowiak, Institute of Automation and Robotics, Poznan University of Technology, Poznan, Poland.
- Dr. Anasuya Roychowdhury, Biochemistry and Cell Biology Laboratory, School of Basic Sciences, Indian Institute of Technology, Bhubaneswar.
- Prof. Asok K. Nanda
  Department of Mathematics and Statistics, IISER Kolkata, Mohanpur-741246, India
- Ms. Mahua Dasgupta
  Section of Quantitative Health Sciences, Medical College of Wisconsin, Milwaukee, USA
- Dr. Satya Kumar Misra, Department of Mathematics, School of Applied Sciences, KIIT University, Bhubaneswar-751

- Research Publications

Sl. No.	Title of the paper	Name of Journal	List of Co authors.	Volume	Page No.	Year.
1	Geometric and harmonic aging intensity functions and their reliability perspective.	*Communications in Statistics - Simulation and Computation* ISSN 0361-0918. Taylor and Francis IF: 0.8 (SCI)	*Bhattacharjee, S.*,* Sen, A., Anwar, S., Nanda, A. K.	Online version available https://doi.org/10.1080/03610918.2025.2501090	1-18	2025
2	On means of support-dependent generalized aging intensity functions and their applications.	*Communications in Statistics - Simulation and Computation* ISSN 0361-0918. Taylor and Francis IF: 0.8 (SCI)	Szymkowiak, M., Nanda, A. K., *Bhattacharjee, S.**	Online version available https://doi.org/10.1080/03610918.2024.2449401)	1–20	2025
3	A new weighted means of failure rate and associated quantile versions	Probability in the Engineering and Informational Sciences [Publisher: Cambridge University Press] ISSN: 0269-9648 (Print), 1469-8951 IF: 1.0 (SCI)	*Bhattacharjee S.*,* S.M. Sunoj, Anwar S.	39(1) doi:10.1017/S0269964824000123	64-82	2025

4	Some results on characterization of distributions in reliability analysis	Communication in Statistics: Theory and Methods [Publisher: Taylor and Francis]ISSN 0361-0926 (print) 1532-415X (web) IF: 0.8 (SCI)	*Bhattacharjee, S.*,* Giri, R.L., Szymkowiak, M.	53 (24) https://doi.org/10.1080/03610926.2024.2306543	8866–8877	2024
5	Properties of aging functions and their means	Communications In Statistics - Simulation and Computation [Publisher: Taylor and Francis] ISSN 0361-0918. IF: 0.8 (SCI)	*Bhattacharjee S.*,* Mohanty, I., Szymkowiak, M., Nanda, A.K.	53(9) https://doi.org/10.1080/03610918.2022.2141257	4189–4208	2024
6	Role of Ageing Metrics to Analyse the Survival Data of Tongue Cancer Patients	Reliability: Theory & Applications [Publisher: Gnedenko Forum] ISSN: 1932-2321	Elina, B., Swain, P., Misra, S.K. and *Bhattacharjee, S.*	3(79) DOI: https://doi.org/10.24412/1932-2321-2024-379-132-143.	132-143	2024
7	A new bivariate distribution with uniform marginals	Communications in Statistics - Theory and Methods ISSN 0361-0926 (print) 1532-415X (web)[Publisher: Taylor and Francis] IF: 0.8 (SCI)	Nanda, A.K. Chowdhury, S., Gayen,S. and *Bhatta charjee, S.*	53(19) https://doi.org/10.1080/03610926.2023.2253944	6918–6943	2024

8	A study of a survival data using kernel estimates of hazard rate and aging intensity functions.	*Statistics in Transition New Series* [Publisher: Polish Statistical Association (PTS) and Statistics Poland (GUS)] ISSN: 1234-7655	Szymkowiak, M., Roychowdhury, A., Misra S.K., Giri, R.L., *Bhattacharjee, S.**	24(5), https://doi.org/10.59170/stattrans-2023-066	109-127	2023
9	A Novel Method To Generate A Family Of Bathtub-Shaped Failure Rates From A Family Of Upside Down Bathtub-Shaped Failure Rates And Vice-Versa	*Reliability: Theory and Applications* RT&A [Publisher: Gnedenko Forum]. *ISSN: 1932-2321*	Giri, R.L., *Bhattacharjee S.,** Kayal, S., Misra, S.K.	No 2 (73) Vol. 18 https://doi.org/10.24412/1932-2321-2023-273-289-297	286-297	2023
10	On ageing intensity function of some Weibull models	*Communications In Statistics—Theory And Methods* [Publisher: Taylor and Francis] ISSN 0361-0926 (print) 1532-415X (web) IF: 0.8 (SCI)	Giri, R.L., Nanda, A.K., Dasgupta, M., Misra, S.K., *Bhattacharjee, S.**	52(1) https://doi.org/10.1080/03610926.2021.1910845.	227–262	2023
11	A case Study to Analyze Ageing Phenomenon in Reliability Theory	Alexandria Engineering Journal ISSN 1110-0168 IF: 6.8 (SCI)	Misra, S.K., *Bhattacharjee, S.**	57 (4) https://doi.org/10.1016/j.aej.2018.03.009	3931-3952	2018

12	Some aging properties of Weibull models	Electronic Journal of Applied Statistical Analysis ISSN 2070-5948 (Online)	*Bhattacharjee, S.** and Misra, S.K.	9(2) 10.1285/i20705948v9n2p297		
13	Reliability analysis using ageing intensity function	Statistics and Probability Letters ISSN 0167-7152 (print version), 1879-2103 (online version) IF: 0.656 (SCI)	*Bhattacharjee, S.** Nanda, A.K., and Misra, S.K.	83(5) https://doi.org/10.1016/j.spl.2013.01.016	1364-1371	2013
14	Inequalities involving expectations to characterize distributions	Statistics and Probability Letters, ISSN: 0167- 7152 IF: 0.656 (SCI)	*Bhattacharjee, S.*, Nanda, A.K., Misra, S.K.	83(9), 2113-2118, 2013		2013
15	Study on Posbist Systems	International Journal of Quality, Statistics, and Reliability ISSN:2511-2104	*Bhattacharjee, S.** Nanda, A.K., and Alam, S.S.	https://doi.org/10.1155/2012/870984 doi:10.1155/2012/870984 Article ID 870984.		2012
16	Mean Residual Life Function, Associated Orderings and Properties	IEEE Transactions on Reliability [Publisher IEEE] ISSN: 15581721 IF: 5.7 (SCI)	Nanda, A.K., *Bhattacharjee, S.* and Balakrishnan, N.	59(1) 10.1109/TR.2009.2035791	55-65 2010	2010

17	Properties of Aging Intensity Function	Statistics and Probability Letters ISSN 0167-7152 (print version), 1879-2103 (online version) IF: 0.656 (SCI)	Nanda, A.K. , *Bhattacharjee, S.*, and Alam S.S.	77 (4)	365-373	2007
18	On Up Shifted Reversed Mean Residual Life Order	Communications in Statistics: Theory and Methods ISSN 0361-0926 (print) 1532-415X (web) IF: 0.8 (SCI)	Nanda, A.K. , *Bhattacharjee, S.*, and Alam S.S.	35(8) https://doi.org/10.1080/ 03610920600637271	1513-1523.	2006
19	Properties of proportional mean residual life Model	Statistics and Probability Letters ISSN 0167-7152 (print version), 1879-2103 (online version) IF: 0.656 (SCI)	Nanda, A.K., *Bhattacharjee, S.,* and Alam, S.S.	76(9)	880-890	2006