Curriculam Vitae

Name: Dr. Mahendra Saha

Current Designation: Associate Professor, Department of Statistics, University of Delhi, Delhi, India.

Office address: Department of Statistics, Faculty of Mathematical Sciences, University of Delhi, Delhi-110007, India. E-mail: msaha@stats.du.ac.in; drmahendrasaha1981@gmail.com.

Ph. D. in Statistics: In the area of Industrial Statistics entitled **"Process Capability Studies and its related Statistical Inference"** under the supervision of **Prof. Sudhansu S. Maiti** from the Dept. of Statistics, Visva-Bharati University. Santiniketan, W.B., India.

Area of Research: Industrial Statistics; Lifetime Data Analysis and Distribution Theory.

Books published:

1. **Mahendra Saha*** and Sudhansu S. Maiti (2016). **Trends and Practices of Process Capability Studies in Theory and Practice**, LAMBERT Academic Publishing, ISBN: 978-3-659-86932-7.
2. **Mahendra Saha*** and Sudhansu S. Maiti (2016). **Generalized Process Capability Index and its Statistical Inference:** Process, Methodology and Applications, LAMBERT Academic Publishing, ISBN: 978-3-659-83394-6.

Book-chapters published:

1. **Mahendra Saha*** (2016). **Generalized process capability index applied to electronic industries**, Industrial Engineering and Management, 1-12, ISBN: 987-93-84443-52-8.
2. **Mahendra Saha*** (2016). **Generalized service achievement index and its application**, Strategies of Commerce & Management, 147-152, ISBN: 978-93-85640-72-8.

Research project Completed:

- UGC-BSR Grant: **Generalized Lifetime Performance Index: Statistical Inference and Applications**, April, 2015 - March, 2017. Budget: Rs. 6,00,000.00.

Editorial board membership:

Recognized Reviewers of National and International journals

1. International Journal of System Assurance Engineering and Management
2. Communications in Statistics - Simulation and Computation
3. Journal of Radiation Research and Applied Sciences
4. Statistics, Optimization and Information Computing
5. Communications in Statistics - Theory and Methods
6. Journal of Statistical Computation and Simulation
7. Quality Technology and Quantitative Management
8. Quality and Reliability Engineering International
9. Industrial Engineering & Management Systems
10. International Journal of Production Research
11. Life Cycle Reliability and Safety Engineering
12. Operations Research and Decisions
13. Alexandria Engineering Journal
14. Journal of Applied Statistics
15. Annals of Data Science
16. Quality Engineering

Sl. No.	Name of the students	Title of the Thesis	Registration & Awarded
		Ph. D. thesis supervised	
5	Pratibha Pareek (2021PHDSTA002)	STUDY ON SOME PROBLEMS OF STATISTICAL QUALITY CONTROL	November, 2021 Course work completed
4	Anju Devi (2019PHDSTA03)	STUDY ON SOME PROBLEMS OF STATISTICAL PROCESS CONTROL	July, 2019 **Awarded** on on January 24, 2024
3	Shivanshi Shukla (2018PHDSTA03)	STATISTICAL INFERENCE OF LIFETIME CHARACTERISTICS FOR ASYMMETRIC DISTRIBUTIONS	July, 2018 **Awarded** on July 07.2022
2	Harsh Tripathi (2017PHDSTA01)	SOME PROBLEMS ON SAMPLING INSPECTION PLAN: STATISTICAL INFERENCE AND APPLICATIONS	August, 2017 **Awarded** on June 11, 2021
1	Sumit Kumar (2016PHDSTA01)	SOME PROBLEMS ON PROCESS CAPABILITY STUDIES: STATISTICAL INFERENCE AND APPLICATIONS	July, 2016 **Awarded** on December 11, 2020
		M.Sc./M.A. thesis supervised	
24	Sparsh Maheshwari 2018IMSST018	Time truncated attribute median control charts for logistic -exponential process distribution	2018-2023
23	Sunil Riyar 2018IMSST018	Applications of time truncated acceptance sampling inspection plans for logistic-exponential process distribution	2018-2023
22	Kiran Mourya (2017IMSST004) Jyoti Mourya (2017IMSST009)	Applications of reliability test plan for logistic-Rayleigh distributed quality characteristics	2020-2022
21	Nikki Meena 2017IMSST007	Application of process capability index for Weibull distributed quality characteristics	2020-2022
20	Vikram Saini 2020MSTA019	Alpha power logarithmic Rayleigh distribution: Statistical inference and applications	2020-2022
19	Ishita Hambir 2019MSTA006	Application of process capability index for non-normal distribution	2019-2021
18	Prity Suman 2019MSTA012	Application of process capability index for normally distributed quality characteristics	2019-2021
17	Shaily Gupta 2019MSTA016	Time truncated group acceptance sampling inspection plan based on Gompertz distribution	2019-2021
16	Amit Kumar Kushwaha 2019MSTA001	Time truncated single acceptance sampling inspectionplan based on Burr-Hatke exponential distribution	2019-2021
15	Rajashree Dey 2018MSTA008	Reliability test plan for time truncated life test based on logistic-exponential distribution	2018-2020
14	Akshay Mali 2015IMSST004	Time truncated life tests for new attribute sampling inspection plan and it's applications	2015-2020
13	Jitendra Tushavera 2015IMSST008	Time truncated attribute control chart for generalized half-normal distribution	2015-2020
12	Vishal Alha 2014IMSST026	Time truncated acceptance sampling planfor generalized half-normal distribution	2014-2019
11	Bhanupriya Pareek 2014IMSST009	Parametric bootstrap control chart for logistic exponential percentiles	2014-2019
10	Rajdeepak Sahu 2014IMSST017	Bootstrap confidence intervals ofthe difference between two generalized process capability indices for normally distributed characteristics	2014-2019
9	Gaurav Doodwal 2014IMSST013	Estimation of generalized process capabilityindices: A comparative study	2014-2019
8	Shaik Shakeer 2016MSTA008	Statistical inference of generalized process capability index C_{py} for exponentially distributed quality characteristic	2016-2018
7	Darshan Ahire 2016MSTA003	Statistical inference of generalized process capability indexC_{py} for normally distributed quality characteristic	2016-2018
6	D. V. Pavan Sasikanth 2016MSTA002	Assessment of generalized process capability index for discrete process distribution	2016-2018
5	Rekha Mewara 2014MSTA014	Bootstrap confidence intervals of generalized process capability index	2014-2016
4	Anuj Gupta 2014MSTA004	Generalized process capability index applied to discrete process distribution	2014-2016
3	Zarafshan Hussain 2013MSTA026	Generalized process capability index for non-normal process distribution: statistical inference and it's applications	2013-2015
2	Sarita Yadav 2012MSTA021	Generalized lifetime performance index using Lindley distributed characteristics	2012-2014
1	Divya Aludia 2012MSTA003	A review of process capability indices	2012-2014

Journal Publications:

* : Corresponding Author, IF: Impact Factor, ESCI: Emerging Sources Citation Index, SCIE: Science Citation Index Expanded

1. Mahendra Saha, Sanku Dey and Devendra Kumar* (2024). Applications of interval estimation for the evaluation of two process capabilities, *Strength of Materials*, communicated.
2. **Mahendra Saha**, Harsh Tripathi* and Sudhansu S Maiti (2024). Group acceptance sampling inspection plan for truncated life test based on some finite mixture distributions: A comparative study, *International Journal of Productivity and Quality Management*, communicated.
3. **Mahendra Saha** and Harsh Tripathi (2024). Classical inference of a new C_{Npmkc} for logistic-exponential process distribution, *International Journal of Reliability, Quality and Safety Engineering*, revised.
4. Sanku Dey, Liang Wang and **Mahendra Saha*** (2024). Confidence intervals of S'_{pmk} based on bias-corrected methods of estimation for generalized exponential distribution, *International Journal of System Assurance Engineering and Management*, revised.
5. **Mahendra Saha***, Amartya Bhattacharya, Sukanta Pramanik, Sudhansu S Maiti and Arindam Gupta (2024). A unified generalized process capability index and its estimation for logistic-exponential distributed characteristic, *European Journal of Industrial Engineering*, accepted, [**SCOPUS**].
6. Harsh Tripathi, Abhimanyu Singh Yadav, **Mahendra Saha**, Sumit Kumar* (2024). Generalized inverse xgamma distribution: properties, estimation and its applications to survival data. *Thailand Statistician*, accepted. [**SCOPUS**]
7. Arvind Pandey*, Pawan Kumar Singh and **Mahendra Saha** (2024): A new lifetime distribution: statistical inference and it's applications, *Statistics and Applications*, accepted, [**UGC CARE I**].
8. **Mahendra Saha***, Anju Devi, Abhimanyu Singh Yadav and Sudhansu S Maiti (2024). Evaluation of a novel loss-based process capacity index and its applications, *International Journal of System Assurance Engineering and Management*, 10.1007/s13198-023-02235-1. [**IF: 2.0, SCOPUS, ESCI**].
9. Harsh Tripathi* and **Mahendra Saha** (2024). Repetitive group sampling inspection plan under item failure scenario based on time truncated life test. *International Journal of System Assurance Engineering and Management*, 10.1108/IJQRM-02-2023-0049. [**IF: 2.0, SCOPUS, ESCI**].
10. Sanku Dey, **Mahendra Saha*** and Chanseok Park (2023). Applications of a new loss and cost-based process capability index to electronic industries, *Communications in Statistics - Case Studies, Data Analysis and Applications*, doi.org/10.1080/23737484.2023.2249850. [**SCOPUS**]
11. Anju Devi*, **Mahendra Saha** and M. S. Kadyan (2023): Applications of process capability indices for supplier's selection problems using bootstrap confidence interval, *International Journal of Statistics and Reliability Engineering*, 10(2), 481-487, [**UGC CARE I**].
12. Abhimanyu Singh Yadav, **Mahendra Saha***, Amartya Bhattacharya and Arindam Gupta (2023). Assessment of generalized lifetime performance index for Lindley distribution using progressive type-II samples. *Reliability: Theory & Applications*, 4(76), 69-86. [**SCOPUS**].
13. **Mahendra Saha***, Pratibha Pareek, Harsh Tripathi and Anju Devi (2023). Time truncated attribute control chart for the generalized Rayleigh distributed quality characteristics and beyond. *International Journal of Quality, Reliability and Management*, 10.1108/IJQRM-02-2023-0049. [**SCOPUS**]
14. **Mahendra Saha**, Harsh Tripathi*, Anju Devi and Pratibha Pareek (2023). Applications of reliability test plan for logistic Rayleigh distributed quality characteristic. *Annals of Data Science*, doi.org/10.1007/s40745-023-00473-5. [**SCOPUS**]

15. **Mahendra Saha*** and Sanku Dey (2023). Estimation and confidence intervals of a new loss based process capability index $\mathcal{C}'_{pm}$ with applications, *International Journal of System Assurance Engineering and Management*, doi.org/10.1007/s13198-023-02004-0. [**IF: 2.0,, SCOPUS, ESCI**]

16. **Mahendra Saha**, Anju Devi and Patibha Pareek (2023). Applications of process capability indices for suppliers selection problems using generalized confidence intervals, *Communications in Statistics - Case Studies, Data Analysis and Applications*, doi.org/10.1080/23737484.2023.2219223. [**SCOPUS**]

17. **Mahendra Saha*** and Sanku Dey (2023). Uses of a new asymmetric loss-based process capability index in the electronic industries, *Communications in Statistics - Case Studies, Data Analysis and Applications*, doi.org/10.1080/23737484.2023.2207499. [**SCOPUS**]

18. Harsh Tripathi*, **Mahendra Saha** and Soumik Halder (2023): Single acceptance sampling inspection plan based on transmuted Rayleigh distribution. *Life Cycle Reliability and Safety Engineering*, doi.org/10.1007/s41872-023-00221-x, [**SCOPUS**].

19. Sanku Dey, **Mahendra Saha***, M. Z. Anis, Sudhansu S. Maiti and Sumit Kumar (2023): Estimation and confidence intervals of $C_{Np}(u, v)$ for logistic-exponential distribution with application, *International Journal of System Assurance Engineering and Management*, doi.org/10.1007/s13198-023-01870-y. [**SCOPUS, ESCI**]

20. **Mahendra Saha*** and Sanku Dey. (2023): Confidence intervals of a loss based PCI S'_{pmk} using exponentiated-exponential distributed quality characteristics, *American Journal of Mathematical and Management Sciences*, doi.org/10.1080/01966324.2023.2175632. [**SCOPUS**]

21. Harsh Tripathi, **Mahendra Saha*** and Sanku Dey (2023): A modified chain group sampling inspection plan for the time truncated life test and it's applications, *Life Cycle Reliability and Safety Engineering*, DOI:10.1007/s41872-023-00215-9, [**SCOPUS**].

22. Refah Alotaibi*, Sanku Dey and **Mahendra Saha** (2022): Estimation and confidence intervals of a new PCI C_{Npmc} for logistic-exponential process distribution, *Journal of Mathematics*, doi.org/10.1155/2022/3135264. [**SCIE**]

23. Harsh Tripathi, Abhimanyu S. Yadav, **Mahendra Saha** and Shivanshi Shukla* (2022): A new flexible extension of xgamma distribution and its application to COVID-19 data, *Nepal Journal of Mathematical Sciences*, 3(1), 11-30.

24. **Mahendra Saha***, Abhimanyu Singh, G. Srinivasa Rao, Sanku Dey and Bipul Sarkar. (2022): Control charts using bootstrap method for logistic-exponential percentiles, *Journal of Scientific Research of The Banaras Hindu University*, 66(5), 137-143. DOI:10.37398/JSR.2022.660517. [**UGC CARE II**]

25. **Mahendra Saha*** and Sanku Dey (2022): Estimation and confidence intervals of modified process capability index using robust measure of variability, *Stochastics and Quality Control*, DOI:10.1515/eqc-2022-0014. [**SCOPUS**]

26. **Mahendra Saha*** (2022): Assessment of two process capabilities using generalized confidence intervals and its applications. *Annals of Data Science*, doi.org/10.1007/s40745-022-00448-y. [**SCOPUS**]

27. **Mahendra Saha*** (2022): Applications of a new process capability index to electronic industries, *Communications in Statistics - Case Studies, Data Analysis and Applications*, 1-14, doi.org/10.1080/23737484.2022.2107962. [**SCOPUS**]

28. Shivanshi Shukla, Abhimanyu Singh Yadav, G. Srinivas Rao, **Mahendra Saha** and Harsh Tripathi* (2022): Alpha power transmuted xgamma distribution and applications to reliability, survival and environmental data. *Journal of Scientific Research of The Banaras Hindu University*, 66(3), 330-346. [**UGC CARE II**]

29. Sanku Dey, Liang Wang and **Mahendra Saha*** (2022): Modified estimation and confidence intervals of an asymmetric loss based process capability index $\mathcal{C}'_{pm}$,

Quality and Reliability Engineering International, 1-16. [**IF: 2.885, SCOPUS, SCIE**]

30. Harsh Tripathi, **Mahendra Saha*** and Jitendra Tushaveera (2022): Time truncated attribute control chart for generalized half normal distribution and its application, *Life Cycle Reliability and Safety Engineering*, doi.org/10.1007/s41872-022-00195-2, [**SCOPUS**].
31. Sumit Kumar, **Mahendra Saha*** and Shikhar Tyagi (2022): Parametric confidence intervals of generalized process capability index and its applications, *Life Cycle Reliability and Safety Engineering*, 11, 177-187, [**SCOPUS**].
32. Sekhar Tyagi, Sumit Kumar*, Arvind Pandey, **Mahendra Saha**, Hansraj Bagaria, (2022): Power xgamma distribution: Properties and its applications to cancer data, *International Journal of Statistics and Reliability Engineering*, 9(1), 51-60. [**UGC CARE I**]
33. Abhimanyu Singh Yadav*, Shivanshi Shukla, Hafida Goual, **Mahendra Saha** and Haitham M. Yousof (2022): Validation of xgamma exponential model via Nikulin-Rao-Robson goodness-of-fit-Test under complete and censored sample with different methods of estimation, *Statistics, Optimization & Information Computing*, 10, 457-483.
34. Harsh Tripathi, **Mahendra Saha*** and Sanku Dey (2022): A new approach of time truncated chain sampling inspection plan and its applications, *International Journal of System Assurance Engineering and Management*, doi.org/10.1007/s13198-022-01645-x. [**SCOPUS, ESCI**]
35. Sanku Dey, **Mahendra Saha***, Shen Zhang and Min Wang (2022): Classical and objective Bayesian estimation and confidence intervals of an asymmetric loss based capability index $\mathcal{C}'_{pmk}$, *Quality and Reliability Engineering International*, 38, 1659-1686. [**IF: 2.885, SCOPUS, SCIE**]
36. Sanku Dey*, **Mahendra Saha** and Sankar Goswami (2021): One parameter $A(\alpha)$ distribution: different methods of estimation, *Spectrum: Science and Technology*, 8(1), 1-9.
37. Abhmanyu Singh Yadav, **Mahendra Saha**, Shivanshi Shukla*, Harsh Tripathi and Rajshree Dey (2021): Reliability test plan based on Logistic-exponential distribution and its application, *Journal of Reliability and Statistical Studies*, 14(2), 695-724. [**ESCI**]
38. Abhmanyu Singh Yadav, **Mahendra Saha**, Harsh Tripathi and Sumit Kumar* (2021): The exponentiated xgamma distribution: a new monotone failure rate model and its applications to lifetime data, *Statistica*, 81(3), 304-334. [**ESCI**]
39. Harsh Tripathi*, Amer Ibrahim Al-Omari, **Mahendra Saha** and Akshay Mali (2021): Time truncated life tests for new attribute sampling inspection plan and it's applications, *Journal Industrial and Production Engineering*, doi.org/10.1080/21681015.2021.1989064. [**SCOPUS, SCIE**]
40. **Mahendra Saha***, Sanku Dey and Saralees Nadarajah (2021): Parametric inference of the process capability index $\mathcal{C}_{pc}$ for exponentiated exponential distribution, *Journal of Applied Statistics*, doi.org/10.1080/02664763.2021.1971632. [**IF: 1.424, SCOPUS, SCIE**]
41. Sumit Kumar, Abhimanyu Singh Yadav, Sanku Dey and **Mahendra Saha*** (2021): Parametric inference of generalized process capability index C_{pyk} for the power Lindley distribution, *Quality Technology and Quantitative Management*, doi.org/10.1080/16843703.2021.1944966. [**IF: 3.134, SCOPUS, SCIE**]
42. **Mahendra Saha***, Harsh Tripathi, Sanku Dey and Sudhansu S. Maiti (2021): Acceptance sampling inspection plan for the Lindley and power Lindley distributed quality characteristics, *International Journal of System Assurance and Engineering Management*, doi.org/10.1007/s13198-021-01349-8. [**SCOPUS, ESCI**]
43. Sanku Dey, **Mahendra Saha*** and Sumit Kumar (2021): Parametric confidence intervals of S_{pmk} for generalized exponential distribution, *American Journal of*

Mathematical and Management Sciences, doi.org/10.1080/01966324.2021.1949412. [**SCOPUS**]

44. Harsh Tripathi, Amer Ibrahim Al-Omari, **Mahendra Saha** and Ayed R. A. Alanzi* (2021): Improved attribute chain sampling plan for Darna distribution, *Computer System Science and Engineering*, 38(3), 381-392. [**SCIE**]
45. **Mahendra Saha**, Harsh Tripathi* and Sanku Dey (2021): Single and double sampling inspection plan based on transmuted Rayleigh distribution, *Journal of Industrial and Production Engineering*, doi.org/10.1080/21681015.2021.1893843. [**SCOPUS, SCIE**]
46. **Mahendra Saha*** and Sanku Dey (2021): Supplier selection by estimation and testing of differences between two process capability indices, *International Journal of Statistics and Reliability Engineering*, 8(1), 69-73. [**UGC CARE I**]
47. **Mahendra Saha***, Sanku Dey and Liang Wang (2021): Parametric inference of the loss based index $\mathcal{C}_{pm}$ for normal distribution, *Quality and Reliability Engineering International*, doi.org/10.1002/qre.2987. [**IF: 2.885, SCOPUS, SCIE**]
48. Sanku Dey, Chunfang Zhang and **Mahendra Saha*** (2021): Classical and Bayesian estimation of the index C_{pmk} and its confidence intervals for normally distributed quality characteristic, *Journal of Statistical Computation and Simulation*, 91(10), 1911-1934. [**IF: 1.424, SCOPUS, SCIE**]
49. **Mahendra Saha*** and Abhimanyu Singh Yadav (2021): Estimation of the reliability characteristics by using classical and Bayesian methods of estimation for xgamma distribution, *Life Cycle Reliability and Safety Engineering*, 10, 303-317, [**SCOPUS**].
50. Sudhansu S. Maiti, Amartya Bhattacharya and **Mahendra Saha*** (2021): On generalizing lifetime performance index, *Life Cycle Reliability and Safety Engineering*, 10, 31-38, [**SCOPUS**].
51. **Mahendra Saha***, Sanku Dey, Abhimanyu Singh Yadav and Sajid Ali (2021): Confidence intervals of the index C_{pk} for normally distributed quality characteristics using classical and Bayesian methods of estimation, *Brazilian Journal of Probability and Statistics*, 35(1), 138-157. [**IF: 0.998, SCOPUS, SCIE**]
52. Abhimanyu Singh Yadav, Sudhansu S. Maiti and **Mahendra Saha*** (2021): The inverse xgamma distribution: statistical properties and different methods of estimation, *Annals of Data Science*, 8(2), 275-293. [**SCOPUS**]
53. Sumit Kumar* and **Mahendra Saha** (2020): Estimation of Generalized Process Capability Indices C_{py} for Poisson Distribution, *Invertis Journal of Management*, 12(2), 123-130.
54. Abhimanyu Singh Yadav, Subhradev Sen, Sudhansu S. Maiti, **Mahendra Saha*** and Shivanshi Shukla (2020): Some further properties and Bayesian inference for inverse xgamma distribution under progressive type-II censored scheme, *Annals of Data Science*, https://doi.org/10.1007/s40745-020-00286-w. [**SCOPUS**]
55. Harsh Tripathi, Sudhansu S. Maiti, Shovan Biswas and **Mahendra Saha*** (2020): Sampling inspection plan for exponentially distributed quality characteristic and beyond, *IAPQR Transactions*, 44(2), 157-173.
56. Harsh Tripathi*, **Mahendra Saha** and Vishal Alha (2020): An application of the truncated single acceptance sampling inspection plan based on generalized-half-normal distribution, *Annals of Data Science*, doi.org/10.1007/s40745-020-00267-z. [**SCOPUS**]
57. **Mahendra Saha***, Sumit Kumar and Rajdeepak Sahu (2020): Comparison of two generalized process capability indices by using bootstrap confidence intervals, *International Journal of Statistics and Reliability Engineering*, 7(1), 187-195. [**UGC CARE I**]
58. Harsh Tripathi, Sanku Dey and **Mahendra Saha*** (2020): Double and group acceptance sampling plan for truncated life test based on inverse log-logistic distribution, *Journal of Applied Statistics*, 1227-1242. [**IF: 1.414, SCOPUS, SCIE**]

59. Ghadah Alomani, Refah Alotaibi*, Sanku Dey and **Mahendra Saha** (2020). Classical estimation of the Index S_{pmk} and its confidence intervals for power Lindley distributed quality characteristics, *Mathematical Problems in Engineering*, doi.org/10.1155/2020/8974349. [**IF: 1.305, SCOPUS, SCIE**]

60. Sanky Dey and **Mahendra Saha*** (2020): Bootstrap confidence intervals of process capability index S_{pmk} using different methods of estimation, *Journal of Statistical Computation and Simulation*, 90(1), 28-50. [**IF: 1.424, SCOPUS, SCIE**]

61. **Mahendra Saha*** and Sanku Dey (2019): Assessing the process capability index S_{pmk} using improved estimators, *Life Cycle Reliability and Safety Engineering*, 8, 211-218.

62. **Mahendra Saha**, Sanku Dey, Abhimanyu Singh Yadav and Sumit Kumar* (2019): Classical and Bayesian inference of C_{py} for generalized Lindley distributed quality characteristic, *Quality and Reliability Engineering International*, 1-19. [**IF: 2.885, SCOPUS, SCIE**]

63. **Mahendra Saha***, Sanku Dey and Sudhansu S. Maiti (2019): Bootstrap confidence intervals of C_{pTk} for two parameter logistic exponential distribution with applications, *International Journal of System Assurance Engineering and Management*, 10(4), 623-631. [**SCOPUS, ESCI**]

64. **Mahendra Saha***, Sumit Kumar, Sudhansu S. Maiti, Abhimanyu Singh Yadav and Sanku Dey (2019): Asymptotic and bootstrap confidence intervals for the process capability index C_{py} based on Lindley distributed quality characteristic, *American Journal of Mathematical and Management Sciences*, 75-89. [**SCOPUS**]

65. Sanku Dey and **Mahendra Saha*** (2019). Bootstrap confidence intervals of generalized process capability index C_{pyk} using different methods of estimation, *Journal of Applied Statistics*, 46(10), 1843-1869. [**IF: 1.404, SCOPUS, SCIE**]

66. Sumit Kumar*, Sanku Dey and **Mahendra Saha** (2019): Comparison between two generalized process capability indices for Burr XII distribution using bootstrap confidence intervals, *Life Cycle Reliability and Safety Engineering*, 8, 347-355, [**SCOPUS**].

67. Abhimanyu Singh Yadav, **Mahendra Saha***, S. K. Singh and Umes Singh (2019): Bayesian estimation of the parameter and the reliability characteristics of xgamma distribution using type-II hybrid censored data, *Life Cycle Reliability and Safety Engineering*, 8, 1-10, [**SCOPUS**].

68. **Mahendra Saha**, Sumit Kumar*, Sudhansu S. Maiti and Abhimanyu Singh Yadav (2018): Asymptotic and bootstrap confidence intervals of generalized process capability index C_{py} for exponentially distributed quality characteristic, *Life Cycle Reliability and Safety Engineering*, 7, 235-243, [**SCOPUS**].

69. Sanku Dey and **Mahendra Saha*** (2018): Bootstrap confidence intervals of the difference between two generalized process capability indices for inverse Lindley distribution, *Life Cycle Reliability and Safety Engineering*, 7, 89-96, [**SCOPUS**].

70. **Mahendra Saha***, Sanku Dey and Sudhansu S. Maiti (2018): Parametric and non-parametric bootstrap confidence intervals of C_{Npk} for exponential power distribution, *Journal of Industrial and Production Engineering*, 35(3), 160-169. [**SCOPUS, SCIE**]

71. Sanku Dey, **Mahendra Saha***, Sudhansu S. Maiti and Chi-Hyuck Jun (2018): Bootstrap confidence intervals of generalized process capability C_{pyk} for Lindley and power Lindley distributions, *Communications in Statistics – Simulation and Computation*, 47(1), 249-262. [**IF: 1.118, SCOPUS, SCIE**]

72. **Mahendra Saha*** (2016). Generalized process capability index C_{py} applied to attribute data, *Wesleyan Journal of Research*, 9(1), 32-36. [**UGC CARE I**]

73. **Mahendra Saha*** (2016). Generalized process capability indices applied to non-normal process distribution, *International Journal of Engineering Trends & Advanced Sciences*, 1(2), 104-110.

74. **Mahendra Saha*** (2016). Generalized process capability index applied to poison process distribution, *International Journal of Education & Applied Sciences Research*, 3(6), 12-21.
75. **Mahendra Saha*** (2015). Performance of a normal process distribution, *International Journal of Engineering and Management Research*, 5(11), 97-105.
76. Sudhansu S. Maiti* and **Mahendra Saha** (2013): On generalized quality capability index, *Calcutta Statistical Association Bulletin*, 65, 201-218. [**UGC CARE I**]
77. **Mahendra Saha** and Sudhansu S. Maiti* (2012): Estimation of generalized process capability indices: A Comparative Study, *Journal of Applied Statistical Science*, 20(2), 119-128. [**SCOPUS**]
78. Sudhansu S. Maiti* and **Mahendra Saha** (2012): Bayesian estimation of generalized process capability indices, *Journal of Probability and Statistics*, Article ID 819730, doi:10.1155/2012/819730. [**ESCI**]
79. Sudhansu S. Maiti* and **Mahendra Saha** (2011): Inference on generalized process capability index, *IAPQR Transactions*, 36, 45-67.
80. Sudhansu S. Maiti*, **Mahendra Saha** and Asok K Nanda (2010): On generalizing process capability indices, *Quality Technology and Quantitative Management*, 7, 279-300. [**IF: 3.134, SCOPUS, SCIE**]

Proceedings Publications:

1. **Mahendra Saha*** and Sudhansu S. Maiti (2016): Confidence Intervals of Cpyk for Inverse Rayleigh and Log-logistic Distributed Quality Characteristics, Proceedings of Institute for Mathematics, Bio-informatics, Information-technology and Computer-science, 5, 254-265.
2. Sudhansu S. Maiti*, Amartya Bhattarchya and **Mahendra Saha** (2014): A New Process Capability Index and its Application to Lindley Distributed Characteristics, Proceedings of Institute for Mathematics, Bio-informatics, Information-technology and Computer-science, 3, 202-212.
3. Sudhansu S. Maiti* and **Mahendra Saha** (2012): Generalized Process Capability Indices, Proceedings of Institute for Mathematics, Bio-informatics, Information-technology and Computer-science, 1, 1-18.

Pre-print Publication:

1. **Mahendra Saha***, Abhimanyu Singh Yadav, Arvind Pandey, Shivanshi Shukla and Sudhansu S Maiti (2019). The extened xgamma distribution, arXiv:1909.01103.

Workshop and Conference Organized:

1. Worked as a Program Coordinator, August 05-09, 2019, **Five Days Workshop on Teaching-Learning-Evaluation For Faculty Members of HEIs**, TLC, Central University of Rajasthan, Funded by MHRD, New Delhi, under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**).
2. Worked as an organizing member, June 29, 2014, **Creating Awareness about Official Statistics in India**, Dept. of Statistics, Central University of Rajasthan, Funded by National Statistical Systems Training Academy (**NSSTA**).

Invited talks:

1. **SQCOR Unit, ISI KOLKATA, Kolkata:** Generalized Process Capability Index: An Overview, March 18, 2015.
2. **MDS University, Ajmer, Rajasthan:** Test of Significance and Correlation, December 22, 2015.
3. **Dept. of Statistics, Ramanujan College, Delhi:** Estimation and confidence intervals of a non-normal process capability index applied to food and electronic industries, March 30, 2022.
4. **Little Flower Degree & PG College, Hyderabad, Telangana:** Time truncated attribute control chart for the Rayleigh distributed quality characteristics and beyond, February 24, 2023.

5. **Dept. of Mathematics, Asansol Engineering College, West Bengal:** Time truncated attribute control chart for the generalized Rayleigh distributed quality characteristics and beyond, June 29-30, 2023.
6. **UGC-Human Resource Development Centre, Mizoram University:** Introduction to Probability & Distribution, July 11-17, 2023.
7. **Dept. of Statistics, St Anthony's College:** Uses of a new asymmetric loss-based process capability index in the electronic industries, November 07, 2023.
8. **UGC-Human Resource Development Centre, Lucknow University:** Statistical Quality Control, November 20-Dec 05, 2023.

Details of paper presentation in National & International Seminars/ Conferences:

1. **Inference on Generalized Process Capability Index**, Seventh International Triennial Calcutta Symposium and PROBABILITY and STATISTICS, Dept. of Statistics, University of Calcutta, December 28-31, 2009.
2. **Estimation of Generalized Process CapabilityIndices: A comparative Study**, XII Annual Conference of the Society of Statistics,Computer and Applications,Organized by Dept. of Statistics, Visva-Bharati University, February 25-27, 2010.
3. **Generalized Lifetime Performance Index with Lindley Distributed Characteristics**, International Conference on Advances in Dynamical Systems, Organized by Dept. of Mathematics, Central University of Rajasthan, March 10-13, 2014.
4. **Generalized process capability index for non-normal process distribution**, International Conference on OPTIMIZATION, COMPUTING AND BUSINESS ANALYSIS,Organized by Dept. of Mathematics, Central University of Rajasthan. February 20-22, 2015.
5. **Generalized Lifetime Performance Index with Lindley Distributed Characteristics**, Ninth International Triennial Calcutta Symposium on Probability & Statistics,Organized by Dept. of Statistics, University of Calcutta, December 28-31, 2015.
6. **Trends and Practices in Process CapabilityStudies**, NATIONAL CONFERENCE ON TIME SERIES, ANALYTICS & RECENT ADVANCES IN STATISTICAL MODELLING, Organized by Dept. of Statistics, Central University of Rajasthan, August 24-25, 2015.
7. **Application of generalized process capability index using structural function**, National Conference on Emerging Trends in Mathematics and its Applications in Engineering, Organized by DEPT. OF MATHEMATICS, MEWAR UNIVERSITY, RAJASTHAN, January 8-9, 2016.
8. **Generalized Process Capability Index for Discrete Process Distribution**, 18th Annual National Conference of Society of Statistics,Computer and Applications ON SIGNIFICANCE OF STATISTICS AS INTERDISCIPLINARY SCIENCES, Organized by DEPT. OF STATISTICS,UNIVERSITY OF JAMMU, JAMMU, February 18-20, 2016.
9. **Confidence Intervals of C_{pyk} for Inverse Rayleigh And Log-logistic Distributed Quality Characteristics**, International Conference Organized by Institute for Mathematics, Bioinformatics,Information Technology and Computer Science, December 21-23, 2016.
10. **Inference on Generalized Lifetime Performance Index with Lindley Distributed Characterictics**, International Conference of The Indian Mathematics Consortium in cooperation with American Mathematical Society, Organized by DST-CENTRE FOR INTERDISCIPLINARY MATHEMATICAL SCIENCES,INSTITUTE OF SCIENCE, BANARAS HINDU UNIVERSITY, December 14-16, 2016.

11. **Bootstrap Confidence Intervals of Generalized Process Capability Index C_{pyk}**, PLATINUM JUBILEE INTERNATIONAL CONFERENCE ON "APPLICATIONS OF STATISTICS", Organized by Dept. of Statistics, University of Calcutta, December 21-23, 2016.
12. **Bootstrap Confidence Intervals of the Difference between Two Generalized Process Capability Indices for inverse Lindley Distribution**, 20th Annual Conference of Vijnana Parishad of India on Mathematical Sciencesand Scientific Computing for Industrial Development & International Symposium on Probabilistic Models & Applications, Manipal University, November 24, 2017.
13. **Bootstrap Confidence Intervals of C_{pTk} for two parameter Logistic-exponential Distribution with Applications**, 2nd National Conference on Statistics for Humanities and Social Sciences,Organized by Rajasthan Statistical Association & Department of Life long Learning, University of Rajasthan, September 4-5, 2018.
14. **The inverse xgamma distribution: Statisticalinference and application**, VI RAJASTHAN SCIENCE CONGRESS on Innovation in Science and Technology for Sustainable Development, Organized by Central University of Rajasthan, October 11-13, 2018.
15. **Parametric inference of the loss based indexCpm for normal distribution**, 4th National Conference on Statistics for Humanities and Social Sciences,Organized by Rajasthan Statistical Association & Department of Life long Learning, University of Rajasthan, March 1-2, 2021.
16. **Parametric inference of the process capability index C_{pc} for exponentiated exponential distribution**, ISPS and Jointly Organized by the Departments of Statistics of Cochin University of Science & Technology, Cochin M.D. University, Rohtak University of Kerala, Trivandrum, September 8-10, 2021.
17. **Applications of A Non-Normal Process Capability Index In Food and Electronic Industries**, Dept. of Statistics, Banaras Hindu University, India, December 14-16, 2021.
18. **Applications of a new process capability index to electronic industries**, INTERNATIONAL SYMPOSIUM ON PROBABILITY AND STATISTICS: NEW FRONTIERS, Department of Statistics, University of Calcutta and Calcutta Statistical Association, August 12-14, 2022.

Members of Academic/Professional Bodies:

1. Indian Statistical Institute, Kolkata, India.
2. Calcutta Statistical Association, Kolkata, India.
3. Indian Society for Probability and Statistics, India.
4. International Indian Statistical Association, India.
5. Society of Statistics, Computer and Applications, Delhi, India.
6. Society for Application of Statistics in Agricultural and Allied Sciences, India.
7. Rajasthan Statistical Association, Rajasthan, India.

National and International Collaborators

1. Alliance University Bengaluru, Bengaluru, India
2. Al al-Bayt University, Mafraq, Jordan
3. Banaras Hindu University, Varanasi, India
4. Bankura Christian College, Bankura, India
5. Burdwan University, Burdwan, India
6. Chandigarh University, Punjab, India
7. GITAM University, Bangalore, India
8. Gurucharan College, Silchar, Assam, India
9. IAR, Gandhinagar, Gujrat, India
10. IISER, Kolkata, Mohanpur, West-Bengal, India

11. Kurukshetra University, Kurukshetra, India
12. Lovely Professional University, Punjab, India
13. Majmaah University, Majmaah, Saudi Arabia
14. MIT-ADT University, Pune, India
15. National Atlas and Thematic Mapping Organization, GoI, Kolkata, India
16. Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia
17. POSTECH, Republic of Korea.
18. Quaid-I-Azam University, Islamabad, Pakistan.
19. Siliguri College, Siliguri, Darjeeling, India
20. St. Anthony's College, Shillong, Meghalaya, India
21. The University of Dodoma, Dodoma, Tanzania
22. The University of Texas at San Antonio, San Antonio Texas, USA
23. University of Manchester, Manchester, UK
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