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DEPARTMENT OF STATISTICS सांख्यिकी विभाग FACULTY OF MATHEMATICAL SCIENCES गणितीय विज्ञान संकाय UNIVERSITY OF DELHI / दिल्ली विश्वविधालय DELHI-110007 / दिल्ली ११०००७

Curriculum Vitae

Ph. D. inIn the area of Industrial Statistics entitled "Process Capability Studies and itsStatistics: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, Distribution Theory, Reliability Theory, Survival Analysis and Actuarial Statistics.
- **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** 1. Mahendra Saha^{*} (2016). Generalized process capability index applied published: 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:** • UGC-BSR Grant: Generalized Lifetime Performance Index: Statistical Inference and Applications, April, 2015 - March, 2017. Budget: Rs. 6.00.000.00.
 - IoE, University of Delhi: A comprehensive study of some problems of statistical quality control: Statistical inference and applications, August, 2024 - May, 2025. Budget: Rs. 5,00,000.00.

Editorial board
membership:Recognized Reviewers of National and International journals1. International Journal of System Assurance Engineering and Management2. 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. Journal of Computational and Applied Mathematics
- 8. Quality Technology and Quantitative Management
- 9. Quality and Reliability Engineering International
- 10. Industrial Engineering & Management Systems

- 11. International Journal of Production Research
- 12. Life Cycle Reliability and Safety Engineering
- 13. Malaysian Journal of Mathematical Sciences
- 14. Operations Research and Decisions
- 15. Austrian Journal of Statistics
- 16. Alexandria Engineering Journal
- 17. Journal of Applied Statistics
- 18. Quality Management Journal
- 19. Annals of Data Science
- 20. Quality Engineering

Ph. D. students	Sl.	Name of	Title of	Registration
supervised:	No.	the students	the Thesis	& Awarded
Superviseur	5	Pratibha Pareek	STUDY ON SOME PROBLEMS OF	November, 2021
		(2021PHDSTA002)	STATISTICAL QUALITY CONTROL	Course work
		· · · · · · · · · · · · · · · · · · ·		completed
	4	Anju Devi	STUDY ON SOME PROBLEMS OF	July, 2019
		(2019PHDSTA03)	STATISTICAL PROCESS CONTROL	Awarded on
				January 24, 2024
	3	Shivanshi Shukla	STATISTICAL INFERENCE OF LIFETIME	July, 2018
		(2018 PHDSTA03)	CHARACTERISTICS FOR ASYMMETRIC	Awarded on
			DISTRIBUTIONS	July 07.2022
	2	Harsh Tripathi	SOME PROBLEMS ON SAMPLING	August, 2017
		(2017 PHDSTA01)	INSPECTION PLAN: STATISTICAL	Awarded on
			INFERENCE AND APPLICATIONS	June 11, 2021
	1	Sumit Kumar	SOME PROBLEMS ON PROCESS	July, 2016
		(2016PHDSTA01)	CAPABILITY STUDIES: STATISTICAL	Awarded on
		````	INFERENCE AND APPLICATIONS	December 11, 2020
				· · · · · · · · · · · · · · · · · · ·

		c. thesis supervised	
Sl.	Student's Name	Title of the	Academic
No.	& Enrol. No.	Project/Thesis	Session
24	Sparsh Maheshwari	Time truncated attribute	2018-2023
	2018IMSST018	median control charts for logistic	
		-exponential process distribution	
23	Sunil Riyar	Applications of time truncated	2018-2023
	2018IMSST018	acceptance sampling inspection plans	
		for logistic-exponential process	
		distribution	
22	Kiran Mourya (2017IMSST004)	Applications of reliability test	2020-2022
	Jyoti Mourya (2017IMSST009)	plan for logistic-Rayleigh	
		distributed quality characteristics	
21	Nikki Meena	Application of process capability	2020-2022
	2017IMSST007	index for Weibull distributed	
		quality characteristics	
20	Vikram Saini	Alpha power logarithmic Rayleigh	2020-2022
	2020MSTA019	distribution: Statistical inference	
		and applications	
19	Ishita Hambir	Application of process capability	2019-2021
	2019MSTA006	index for non-normal distribution	
18	Prity Suman	Application of process capability	2019-2021
	2019MSTA012	index for normally distributed	
		quality characteristics	
17	Shaily Gupta	Time truncated group acceptance	2019-2021
÷ 1	2019MSTA016	sampling inspection plan based	2010-2021
	2010/00 1/010	on Gompertz distribution	
16	Amit Kumar Kushwaha	Time truncated single acceptance	2019-2021
10	2019MSTA001	sampling inspection plan based on	2019-2021
	2013W01A001	Burr-Hatke exponential distribution	
15	Rajashroa Da-		2018-2020
10	Rajashree Dey 2018MSTA008	Reliability test plan for time truncated life test based on	2016-2020
	2010WIS1A008		
14	A1 .1 »« »	logistic-exponential distribution	0015 0000
14	Akshay Mali	Time truncated life tests for	2015-2020
	2015IMSST004	new attribute sampling inspection	
		plan and it's applications	
13	Jitendra Tushavera	Time truncated attribute control	2015-2020
	2015IMSST008	chart for generalized half-	
		normal distribution	
12	Vishal Alha	Time truncated acceptance	2014-2019
	2014IMSST026	sampling planfor generalized	
		half-normal distribution	
11	Bhanupriya Pareek	Parametric bootstrap control chart for	2014-2019
	2014IMSST009	logistic exponential percentiles	
10	Rajdeepak Sahu	Bootstrap confidence intervals	2014-2019
	2014IMSST017	of the difference between two	
		generalized process capability indices for	
		normally distributed characteristics	
9	Gaurav Doodwal	Estimation of generalized process	2014-2019
	2014IMSST013	capability indices: A comparative	2011 2010
		study	
8	Shaik Shakeer	Statistical inference of generalized	2016-2018
0	2016MSTA008	process capability index $C_{py}$ for	2010-2010
	2010/031A000	exponentially distributed quality	
7	Danahar Altin	characteristic	2016 2010
7	Darshan Ahire	Statistical inference of generalized	2016-2018
	2016MSTA003	process capability index $C_{py}$ for	
		normally distributed quality characteristic	0010 001
		Assessment of generalized process	2016-2018
6	D. V. Pavan Sasikanth		
6	D. V. Pavan Sasikanth 2016MSTA002	capability index for discrete	
	2016MSTA002	capability index for discrete process distribution	
6	2016MSTA002 Rekha Mewara	capability index for discrete process distribution Bootstrap confidence intervals of	2014-2016
	2016MSTA002 Rekha Mewara 2014MSTA014	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index	
	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta	capability index for discrete process distribution Bootstrap confidence intervals of	2014-2016 2014-2016
5	2016MSTA002 Rekha Mewara 2014MSTA014	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index	
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index Generalized process capability index	
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index Generalized process capability index applied to discrete process	
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index Generalized process capability index applied to discrete process distribution Generalized process capability index	2014-2016
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index Generalized process capability index applied to discrete process distribution	2014-2016
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index Generalized process capability index applied to discrete process distribution Generalized process capability index for non-normal process distribution: statistical inference and it's	2014-2016
5 4 3	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain 2013MSTA026	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index applied to discrete process distribution Generalized process capability index for non-normal process distribution: statistical inference and it's applications	2014-2016 2013-2015
5	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain 2013MSTA026 Sarita Yadav	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index applied to discrete process distribution Generalized process capability index for non-normal process distribution: statistical inference and it's applications Generalized lifetime performance	2014-2016 2013-2015
5 4 3	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain 2013MSTA026	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index applied to discrete process distribution Generalized process capability index for non-normal process distribution: statistical inference and it's applications Generalized lifetime performance index using Lindley distributed	2014-2016 2013-2015
5 4 3	2016MSTA002 Rekha Mewara 2014MSTA014 Anuj Gupta 2014MSTA004 Zarafshan Hussain 2013MSTA026 Sarita Yadav	capability index for discrete process distribution Bootstrap confidence intervals of generalized process capability index applied to discrete process distribution Generalized process capability index for non-normal process distribution: statistical inference and it's applications Generalized lifetime performance	

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

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Proceedings Publications:	3 Mahendra Saha [*] and Sudhansu S. Maiti (2016): Confidence Intervals of Cpyk for Inverse Rayleigh and Log-logistic Distributed Quality Characteristics, Pro- ceedings of Institute for Mathematics, Bio-informatics, Information-technology and Computer-science, 5, 254-265.
	2 Sudhansu S. Maiti [*] , Amartya Bhattarchya and <b>Mahendra Saha</b> (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.
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Pre-print Publication:	1. <b>Mahendra Saha</b> [*] , Abhimanyu Singh Yadav, Arvind Pandey, Shivanshi Shukla and Sudhansu S Maiti (2019). The extened xgamma distribution, arXiv:1909.01103.
Workshop and Conference Organized:	2 Worked as a Program Coordinator, August 05-09, 2019, <b>Five Days Workshop</b> on <b>Teaching-Learning-Evaluation For Faculty Members of HEIs</b> , TLC, Central University of Rajasthan, Funded by MHRD, New Delhi, under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching ( <b>PMMMNMTT</b> ).
	1 Worked as an organizing member, June 29, 2014, <b>Creating Awareness about</b> Official Statistics in India, Dept. of Statistics, Central University of Ra- jasthan, Funded by National Statistical Systems Training Academy (NSSTA).
Invited talks:	<ol> <li>SQCOR Unit, ISI KOLKATA, Kolkata: Generalized Process Capability Index: An Overview, March 18, 2015.</li> </ol>
	<ol> <li>MDS University, Ajmer, Rajasthan: Test of Significance and Correlation, December 22, 2015.</li> </ol>
	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 trun- cated 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.
	<ol> <li>UGC-Human Resource Development Centre, Mizoram University: In- troduction to Probability &amp; Distribution, July 11-17, 2023.</li> </ol>
	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: Sta- tistical 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 Capability Indices: 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 BUSI-NESS 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 CON-FERENCE ON TIME SERIES, ANALYTICS & RECENT ADVANCES IN STA-TISTICAL 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 SCI-ENCES, 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 "AP-PLICATIONS 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 Logisticexponential 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.

		The inverse xgamma distribution: Statisticalinference and application, VI RAJASTHAN SCIENCE CONGRESS on Innovation in Science and Technol- ogy for Sustainable Development, Organized by Central University of Rajasthan, October 11-13, 2018. Parametric inference of the loss based indexCpm for normal distri-
	10.	bution, 4th National Conference on Statistics for Humanities and Social Sci- ences,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 exponen- tiated exponential distribution, ISPS and Jointly Organized by the Depart- ments 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 indus- tries, INTERNATIONAL SYMPOSIUM ON PROBABILITY AND STATIS- TICS: NEW FRONTIERS, Department of Statistics, University of Calcutta and Calcutta Statistical Association, August 12-14, 2022.
Members of Aca-	1.	Indian Statistical Institute, Kolkata, India.
demic/Professional		Calcutta Statistical Association, Kolkata, India.
Bodies:	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	-1	
International		Alliance University Bengaluru, Bengaluru, India
Collaborators		Al al-Bayt University, Mafraq, Jordan Banaras Hindu University, Varanasi, India
		Banaras Hindu University, Varanasi, India Bankura Christian College, Bankura, India
		Burdwan University, Burdwan, India
		Central University of Rajasthan, Kishangarh, India
		Chandigarh University, Punjab, India
		GITAM University, Bangalore, India
		Gurucharan College, Silchar, Assam, India
		IAR, Gandhinagar, Gujrat, India
		IISER, Kolkata, Mohanpur, West-Bengal, India
		Kurukshetra University, Kurukshetra, India
		Lovely Professional University, Punjab, India
		Majmaah University, Majmaah, Saudi Arabia
		MIT-ADT University, Pune, India
	16.	National Atlas and Thematic Mapping Organization, GoI, Kolkata, India
	17.	Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia
	18.	POSTECH, Republic of Korea.
	19.	Quaid-I-Azam University, Islamabad, Pakistan.
	20.	Siliguri College, Siliguri, Darjeeling, India
	21.	St. Anthony's College, Shillong, Meghalaya, India

- 22. Symbiosis International University (Deemed), Pune, India
- 23. The University of Dodoma, Dodoma, Tanzania
- 24. The University of Texas at San Antonio, San Antonio Texas, USA
- 25. University of Manchester, Manchester, UK
- 26. Visva-Bharati University, Birbhum, West-Bengal, India
- 27. Xidian University, Xi'an, People's Republic of China
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