



Title Associate Profe	essor First	Name	Devendra	Last N	lame	Kumar	Photograph	
Designation	Asso	Associate Professor						The state of the s
Department	Stati	stics						
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Education								
Subject		Institution		Year		Details		
Ph.D.	Al	Aligarh Muslim University, Aligarh		rsity,		2013	Thesis topic: Some Moments Problem in Generalized Order Statistics, Order Statistics and Record Values	
M. Phil	Ali	Aligarh Muslim University, Aligarh			2008	Topic: Moments Statistics and its Appli	of Order ications	
M. P. S.	In	ternatio	nal Institute	e of		2008	Correspondence	
	Pop	Population sciences, N		umbai				
M.Sc.	Ali	Aligarh Muslim University, Aligarh		sity,		2006		
Career Profile								
Organization / In		Designation		Duration		Role		
Department of Statistics, University of Delhi		Associa	ite Professo	or		tember 01, I to Till date	Teaching and Resear	rch
Department of Statistics, Central University of Haryana		Associate Professor		August 22, 2022 to August 31, 2023		Teaching and Research		
Department of Statistics, Central University of Haryana		Assistant Professor		June 21, 2016 To August 21, 2022		Teaching and Research		

Department of Statistics, Amity University, Noida Assistant Professor	August 13, 2012- Teaching and Research June, 20, 2016
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## **Research Interests / Specialization**

Distribution Theory, Statistical Inference- Classical and Bayesian viewpoints, Censored data, Record values, Survival analysis, Reliability theory, Accelerated life testing and Order Statistics.

#### **Awards and Honors**

- ❖ Best Researcher Award 2021 for Sciences and Engineering, Central University of Haryana.
- Best Researcher Award 2019 for Sciences, Central University of Haryana
- UGC Fellowship in PhD (2008 –2012).
- ❖ UGC Fellowship in M. Phil (2006 –2008).

#### **Editorial Activities**

- Associate Editor, Assam Statistical Review
- Associate editorial board member, Journal of current Indian Science, 2020-
- Member, American Mathematical Society.

## **Teaching Experience (Subjects/Courses Taught)**

B.Sc. (H.) Statistics, M.Sc. Statistics, M.Phil Statistics and Ph.D. Statistics

# Total No. of Publications: 144 Publications (LAST FIVE YEARS)

- 1. Diyali, B., **Kumar, D.** and Singh, S. (2023). Discriminating between log-normal and log-logistic distributions in the presence of type-II censoring, *Computational Statistics*, (To appear).
- 2. Yadav. P, Kumar, D. and Singh, S. (2023). Statistical Analysis for Log-Normal Distribution in the Presence of Hybrid Censoring and Step-Stress, *Strength of Materials*, doi.org/10.1007/s11223-023-00548-x.
- 3. **Kumar, D.**, Wang L. and Dey, S. (2023). Order Statistics of Generalized Topp-Leone Distribution with Application to Tissue Damage Proportions in Blood, *Lobachevskii Journal of Mathematics* (To appear).
- 4. Dey, S., Nassar, M., Ali, S., **Kumar, D.** and Raheem, E. (2022). Comparison of Estimation Methods of Power Generalized Weibull Distribution, *Statistica*, (To appear).
- 5. **Kumar, D.,** Wang, L., Dey, S. and Salehi, M. (2022). Inference on generalized inverted exponential distribution based on record values and inter-record times, *Afrika Matematika*, (To appear).
- 6. Kumar, D. Kumar, M. Yadav, S. and Goyal, A. (2022). A new parameter estimation method for the

- extended power Lindley distribution based on order statistics with application *STATISTICS IN TRANSITION new series* (To appear).
- 7. **Kumar, D.** and Kumar, M. and Saran, J. (2022). Power generalized Weibull distribution based on record values and associated Inferences with bladder cancer data example, *Communications in Mathematics and Statistics*, (To appear).
- 8. **Kumar, D.,** Nassar, M., Malik, M.R. and Dey, S. (2021): Estimation of the location and scale parameters of generalized Pareto distribution based on progressively type-II censored order statistics, *Annals of Data Sciences* (To appear).
- 9. **Kumar, D.**, Yadav, P. and Kumar, J. (2022). Classical inferences of order statistics for inverted modified Lindley distribution with applications, *Strength of Materials*, 55, 441-455.
- 10. Dey, S., Altun, E., **Kumar**, **D**. and Ghosh, I. (2023). The reflected-shifted-truncated Lomax distribution: Associated inference with applications, *Annals of Data Sciences*, **10**, 805-828.
- 11. Kharazmi, O., **Kumar, D.** and Dey, S. (2023). Power modified Lindley distribution: properties, classical and Bayesian estimation and regression model with applications, *Austrian Journal of Statistics*, **52**, 71-95.
- 12. **Kumar, D.**, Nassar, M. and Dey, S. (2023). Progressive type-II censored data and associated inference with application based on Li-Li Rayleigh distribution, *Annals of Data Sciences*, **10**, 43-71.
- 13. Kumar, D. and Sharma, V. K. (2022): An extension of exponentiated Gamma distribution: A new regression model with application, *Lobachevskii Journal of Mathematics*, 43, 2525–2543.
- 14. Kumar, D., Nassar, M., Dey, S. and Diyali, B. (2022). Analysis of an inverted modified Lindley distribution using dual generalized order statistics, *Strength of Materials*, **54**, 889-904.
- 15. Shakhatreh, M. K., Dey, S. and **Kumar D.** (2022). Inverse Lindley power series distributions: A new compounding family and regression model with censored data, *Journal of Applied Statistics*, **49**, 3451-3476.
- 16.**Kumar, D.,** Nassar, M. and Dey, S. (2022). Constant Stress Accelerated Life Test: Different Methods of Estimation Under the Exponentiated Power Lindley Distribution, <u>Strength of Materials</u>, **54**, 444-461.
- 17. Alotaibi, R., Almetwally, E. M., **Kumar, D.** and Rezk, H. (2022). Optimal Test Plan of Step-Stress Model of Alpha Power Weibull Lifetimes under Progressively Type-II Censored Samples, *Symmetry*, **14**, 1801.
- 18.Kumar, D., Kumar, M. and Joorel, J.P.S. (2022). Estimation with modified power function distribution

- based on order statistics with application to evaporation data, Annals of Data Sciences 9, 723-748.
- 19.Kharazmi, O., Dey, S. and **Kumar, D.** (2022). Statistical Inference on 2-Component Mixture of Topp-Leone Distribution, Bayesian and non-Bayesian Estimation, *Journal of Mathematical Extension* **9**, 1-41.
- 20.Afify, A. Z., Nassar, M., **Kumar, D.** and Cordeiro, G. M. (2022). A New Unit Distribution: Properties, Inference, and Applications, *Electronic Journal of Applied Statistical Analysis*, **15**, 460-484.
- 21. Kumar, D., Nassar, M. and Dey, S. and Farouq Mohammad A. Alam (2021). On Estimation Procedures of Constant Stress Accelerated Life Test for Generalized Inverse Lindley Distribution, *Quality and Reliability Engineering International* 38, 211-228.
- 22.Dey, S., **Kumar, D.,** Anis, M. Z. Nadarajah, S. and Okorie, I. E. (2021). A review of transmuted distributions, *Journal of the Indian Society for Probability and Statistics* **22**, 47–111.
- 23. Kumar, D., Nassar, M., Dey, S. and Elshahhat, A. (2021). Inferences for generalized Topp-Leone distribution under dual generalized order statistics with applications to Engineering and COVID-19 data, *Model Assisted Statistics and Applications* **16**, 125-141.
- 24.Khaoula, A., Dey, S., **Kumar, D**. and Seddik-Ameur, N. (2021). Different classical methods of estimation and Chi-squared goodness-of-fit test for unit generalized inverse Weibull distribution, *Austrian Journal of Statistics*, **50**, 77-100.
- 25. Kumar, D., Kumar, M., Ahmed M. T. Abd El-Bar and Maria do Carmo S. Lima (2021). The Weibull Marshall-Olkin Lomax Distribution with Applications to Bladder and Head Cancer Data, *J. Appl. Math. & Informatics*, **39**, 785-804.
- 26.Farooqi, M. S., **Kumar, D**., Mishra, D. C., Rai, A. and Singh, N. K. (2021): A hybrid method for differentially expressed genes identification and ranking from RNA-Seq data, *International Journal of Bioinformatics Research and Applications*, **17**, 38 52.
- 27. Kumar, D., Jain, N., Nassar, M. and Abo-Kasem, O. E. (2021): Parameter estimation for the exponentiated Kumaraswamy-power function distribution based on order statistics with application, *Annals of Data Sciences*, **8**, 785–811.
- 28.Al-Babtain, A. A., **Kumar, D.,** Gemeay, A. M., Dey, S. and Afify, A. Z. (2021). Modeling Engineering Data Using Extended Power-Lindley Distribution: Properties and Estimation Methods, *Journal of King Saud University-Science*, **33**, 101582.
- 29. Kumar, D., Nassar, M., Afify, A. Z., and Dey, S. (2021). The Complementary Exponentiated Lomax-

- Poisson Distribution with Applications to Bladder Cancer and Failure Data, *Austrian Journal of statistics*, **50**, 77–105.
- 30.Mallick, A., Ghosh, I., Dey, S. and **Kumar, D.** (2021). Bounded weighted exponential distribution with application, *American Journal of Mathematical and Management Sciences*, **40(1)**, 68-87.
- 31.Dey, S., Waymyers, S., and **Kumar, D.** (2020). The Reflected-Shifted-Truncated Lindley Distribution with Applications, *Stochastics and Quality Control*, **35**, 67–77.
- **32.Kumar, D.**, Kumar, M. and Dey, S. (2020). Inferences for the type-II exponentiated log-logistic distribution based on order statistics with application, *Journal of Statistical Theory and Applications*, **13(3)**, 352-367.
- 33. Shrahili, M., Alotaibi, N., **Kumar, D.** and Alyami, S. A. (2020). Inference for the two parameter reduced Kies distribution under progressive type-II censoring, *Mathematics* **2020**, *8*(11), 1-20.
- 34. Kumar, D., Dey, S. Ormoz, E. and MirMostafaee, S.M.T.K. (2020). Inference for the unit-Gompertz model based on record values and inter-record times with an application, *Rendiconti del Circolo Matematico di Palermo*, **69**, 1295–1319.
- 35. **Kumar, D.,** Nassar, M. and Dey, S. (2020): Inference for generalized inverse Lindley distribution based on generalized order statistics, *Afrika Matematika*, **31**, 1207-1235.
- 36. Shrahili, M., Alotaibi, N., **Kumar, D.** and Shafay, A. (2020). Inference on exponentiated power Lindley distribution based on order statistics with application, *Complexity*, 2020, 1-14.
- 37. Farooqi, M.S. and **Kumar**, **D.** (2020): Moments properties of exponentiated exponential-geometric distribution based on generalized order statistics, *Journal of Applied Probability and Statistics*, **15(2)**, 1-18.
- 38.Dey, S., Ali, S. and **Kumar, D.** (2020). Weighted Inverted Weibull Distribution: Properties and Estimation, *Journal of Statistics & Management Systems*, **23(5)**, 843-885.
- 39.Malik, M.R. and **Kumar, D.** (2020): Relations for single and product moments of exponential-Weibull distribution based on progressively censored data, *International Journal of Agricultural and Statistical Sciences*, **16**, 465-477.
- 40.Singh, S., Dey, S. and **Kumar, D.** (2020). Statistical inference based on generalized Lindley record values, *Journal of Applied Statistics*, **47(9)**, 1543-1561.
- 41.Afify, A. Z., Kumar, D. and Elbatal, I. (2020). Marshall-Olkin Power Generalized Weibull Distribution

- with Applications in Engineering and Medicine, *Journal of Statistical Theory and Applications*, **19**, 223-237.
- 42.Alghamedi, A., Dey, S., **Kumar**, **D**. and Dobbah, S. A. (2020). A New Extension of Extended Exponential Distribution with Applications, *Annals of Data Sciences*, **7**, 139-162.
- 43.Afify, A. Z. Nassar, M., Cordeiro, G. M. and **Kumar, D.** (2020). The Weibull Marshall-Olkin Lindley Distribution: Properties and Estimation, *Journal of Taibah University for Science*, 14, 192-204.
- 44.Dey, S., Nassar, M., **Kumar, D**., Alzaatreh, A. and Tahir, M. H. (2019). New Lifetime Distribution with Decreasing and Upside-Down Bathtub-Shaped Hazard Rate Function, *Statistica*, **79**, 399-426.
- 45.Ghosh, I., Dey, S. and **Kumar, D.** (2019). Bounded M-O Extended Exponential Distribution with Applications, *Stochastics and Quality Control*, **34**, 35-52.
- 46.Malik, M.R. and **Kumar, D.** (2019). Generalized Pareto distribution based on generalized order statistics and associated inference, *Statistics in Transition new series*, **20**, 57-80.
- 47.**Kumar, D.** and Goyal, A. (2019). Generalized Lindley Distribution Based on Order Statistics and Associated Inference with Application, *Annals of Data Sciences*, **6**(4), 707-736.
- 48.**Kumar, D.** and Kumar, M. (2019). A New Generalization of the Extended Exponential Distribution with an Application, *Annals of Data Sciences*, **6**, 441-462.
- 49.Nassar, M., **Kumar**, **D.**, Dey, S., Gauss M. Cordeiro and Ahmed Afify, (2019): The Marshall-Olkin Alpha Power Family of Distributions, *Journal of Computational and Applied Mathematics*, **351**, 41-53.
- 50.**Kumar, D.** and Goyal, A. (2019). Order Statistics from the Power Lindley Distribution and Associated Inference with Application, *Annals of Data Sciences*, **6**, 153-177.
- 51.**Kumar, D.** Mansoor, M.Q. S., Dey, S. Malik, M. R. (2019): Recurrence relations for moments and estimation of parameters of extended exponential distribution based on progressive type-II right censored order statistics, *Journal of Statistical Theory and Application*, **18**, 171-181.
- 52.Dey, S., Nassar, M. and **Kumar, D.** (2019): Moments and Estimation of Reduced Kies Distribution Based on Progressive Type-II Right Censored Order Statistics, *Hacettepe Journal of Mathematics and Statistics*, **48**, 332-350.
- 53. Dey, S., Nassar, M., **Kumar, D.** and Alaboud, F. (2019): Alpha Logarithm Transformed Frechet distribution: Properties and Estimation, *Austrian Journal of Statistics*, **48**, 70-93.

- 54.Dey, S., Nassar, M. and **Kumar, D.** (2019): Alpha power transformed inverse Lindley Distribution: A distribution with an upside-down bathtub-shaped hazard function, *Journal of Computational and Applied Mathematics*, **348**, 130-145.
- 55.Dey, S., Ghosh, I and **Kumar, D.** (2018): Alpha-power transformed Lindley distribution: properties and associated inference with application to earthquake data, *Annals of Data Science*, 5, 1-28.
- 56.**Kumar, D.** and Dey, S. (2018): Upper Record Values from Extended Exponential Distribution, *Journal of Modern Applied Statistical Methods*, **17**, 2-18.
- 57. Nassar, M., Dey, S., and **Kumar, D.** (2018): Logarithm Transformed Lomax Distribution with Applications, *Calcutta Statistical Association Bulletin*, 70, 122–135.
- 58.**Kumar, D**. (2018): Relationship for Quotient Moments of Ordered Random Variables from Exponentiated Pareto Distribution, *Biostatistics and Biometrics*, **6**, 1-6.
- 59. Farooqi, M. S. and **Kumar, D**. (2018): On Dagum distribution based on dual generalized order statistics with Applications, *International Journal of Agricultural and Statistical Sciences*, **14**, 833-841.
- 60.**Kumar, D.** and Dey, S., Nassar, M. and Yadav, P. (2018): The recurrence relations of order statistics moments for power Lomax distribution, *Journal of Statistical Research*, **52**, 75-90.
- 61.Dey, S., Moala, F. A. and **Kumar, D**. (2018). Statistical Properties and Different Methods of Estimation of Gompertz Distribution with Application, *Journal of Statistics and Management Systems*, **21**, 839–876.
- 62. Farooqi, M. S. and **Kumar**, **D.** (2018): Moment generating functions of generalized exponential distribution based on lower generalized order statistics, *International Journal of Agricultural and Statistical Sciences*, **14**, 165-174.
- 63. Kumar, D., Dey, S., Malik, M.R. and Al-Aboud, F. M. (2018): Moment generating functions of complementary exponential-geometric distribution based on *kth* Lower Record Values, *Journal of Modern Applied Statistical Methods*, 17, 1-21.
- 64.**Kumar, D**. and Jain, N. (2018): Power generalized Weibull distribution based on generalised order statistics, *Journal of Data Science*, **16**, 621-646.
- 65. Nassar, M. Dey, S. and **Kumar, D.** (2018): A New Generalization of the Exponentiated Pareto Distribution with an Application, *American Journal of Mathematical and Management Sciences*, **37(3)**, 217-242.

- 66. Nassar, M, Afify, M. Z., Dey, S. and Kumar, D. (2018). <u>A New Extension of Weibull Distribution:</u>
  <u>Properties and Different Methods of Estimation</u>. *Journal of Computational and Applied Mathematics*,
  336, 439-457.
- 67.**Kumar, D.** and Kumar, M. (2018): Record values from exponentiated Pareto type I distribution and associated inference, *Model Assisted Statistics and Applications*, 13, 19-43.
- 68.Malik, M.R. and **Kumar, D.** (2018): Relations for moments of progressively type-II Right censored order statistics from Erlang-truncated exponential distribution, *Statistics in Transition new series*, **18**, 650-668.
- 69. Kumar, D., Dey, S., and Nadarajah, S. (2017): Extended exponential distribution based on order statistics, *Communications in Statistics-Theory and Methods*, **46**, 9166-9184.
- 70. Kumar, D., Dey, T. and Dey, S. (2017): Statistical inference of exponentiated moment exponential distribution Based on lower record values, *Communications in Mathematics and Statistics*, **05**, 231-260.
- 71.Dey, S., Nassar, M. and Kumar, D. (2017): Alpha logarithmic transformed family of distributions with application, *Annals of Data Sciences*, **04**, 457-482.
- 72. **Kumar, D.** and Dey, S. (2017): Relations for moments of generalized order statistics from extended exponential distribution, *American Journal of Mathematical and Management Sciences*, **36**, 378-400.
- 73. Dey, S., **Kumar, D.**, Ramos, P. L. and Louzada, F. (2017): Exponentiated Chen Distribution: Properties and Estimation, *Communications in Statistics-Simulation and Computation*, 46, 8118-8139.
- **74. Kumar, D.**, (2017): The Singh-Maddala distribution: Properties and Estimation, *International journal of system assurance engineering and management*, **8**, 1297-1311.
- 75. **Kumar, D.**, Kumar, M, Saran, J., and Jain, N. (2017): The Kumaraswamy-Burr III distribution based on upper record values, *American Journal of Mathematical and Management Sciences*, **36**, 205-228.
- 76. **Kumar, D.**, (2017): The Burr type XII distribution with some statistical properties, *Journal of Data Science*, **15**, 509-533.
- 77. Dey, D., Alzaatreh, A., Zhang, C. and **Kumar, D.** (2017): A new extension of generalized exponential distribution with application to Ozone data, *Ozone: Science and Engineering*, **39**, 273-285.

## **ARTICLES IN THE EDITED BOOKS:**

- Kumar, D. and Shekhar, C. (2008): Does the child loss at initial phase of Reproduction affect fertility
  Behavior among women in Uttar Pradesh? Proceeding VI International Symposium on Optimization and
  Statistics at Aligarh Muslim University, Aligarh. 280-289.
- **2. Kumar, D.** (2012): Recurrence relations for lower generalized order statistics from doubly truncated distributions and its characterization, *Emerging Applications of Bayesian statistics and stochastic modeling*, 104-111.
- **3. Kumar, D.** and Pundhir P.S. (2012): Some results for the moments of generalized order statistics from hyper linear exponential distribution and its characterization, *Emerging Applications of Bayesian statistics* and stochastic modeling, 112-120.

#### **Conference Presentations**

- 1. Does the child loss at initial phase of Reproduction affect fertility Behavior among women in Uttar Pradesh? "VI International Symposium on Optimization and Statistics" organized by Department of Statistics and operations Research, Aligarh Muslim University, Aligarh (December, 29-31, 2008).
- 2. Relations for moments of lower generalized order statistics from exponentiated Pareto distribution. "National Conference on Recent Developments in Science & Technology" organized by Shri Varshney Mahavidyalaya Aligarh Affiliated to Dr. Ambedkar University Agra (February, 15-16, 2009).
- **3.** On moments of lower generalized order statistics from exponentiated Pareto distribution and its characterization. "National Seminar on Computational Mathematics Operations Research" organized by B.K. Birla Institute of Engineering & Technology Pilani (November, 28-29, 2009).
- 4. Relations for moment generating functions of lower generalized order statistics from doubly truncated continuous distributions and its characterization. "International Conference on Development and Applications of Statistics in emerging areas of Science and Technology" organized by department of statistics, University of Jammu, Jammu, India (December, 8-10, 2010).
- 5. Moments of generalized order statistics from Erlang-truncated exponential distribution and its characterization. "International Conference on New Trends in Life Testing, Bayesian Inference, Sampling Theory, Bio-statistics, Bio-informatics and Computer Applications" organized by Department of Statistics, Banaras Hindu University, Varanasi, India (January 5-8, 2011).
- **6.** Generalized order statistics from Kumaraswamy distribution and its characterization. "Bhopal Seminar on Contemporary Issues in Mortality Health and Development in India "organized by SHYAM' Institute Bhopal, India (January, 19-21, 2011).
- **7.** Lower generalized order statistics from exponentiated gamma distribution and its characterization. "National Conference on Statistics for twenty-first Century and annual conference of Kerala Statistical Association" organized by Department of Statistics, Kerala University, Thiruvananthapuram, Kerala (March, 17-19, 2011).
- 8. Relations for expectations of lower generalized order statistics from exponentiated log-logistic distribution and its characterization. "National Conference on Statistical Inference, Sampling Techniques and Related Areas" organized by Department of Statistics and Operations Research

- Aligarh Muslim University, Aligarh, India (March 28 29, 2011).
- **9.** Expectation identities of lower generalized order statistics from generalized exponential distribution and a characterization. "New development in theory and applications of Statistics an International Conference in memory of Moti Lal Tiku" organized by Department of Statistics Middle East Technical University Anakra, Turkey (May, 2-4, 2011).
- **10.** Recurrence relations for moments of kth lower record values from exponentiated log-logistic distribution and a characterization. "CONIAPS-XIII, 13th International conference of International Academy of Physical Sciences" organized by University of Petroleum and Energy Studies, Dehradun (June 14-16, 2011).
- **11.** Relations for marginal and joint moment generating functions of generalized exponential distribution based on lower generalized order statistics and a characterization. "National Research Scholars meet in Mathematical Sciences, organized by Department of Mathematics Indian Institute of Technology Kharagpur India (October 15-18, 2011).
- **12.** Explicit expression for kth lower record values from J-shaped distribution and a characterization. "Bhopal Seminar on Contemporary Issues in Population, and Reproductive and Child Health in India" organized by SHYAM' Institute Bhopal, India (January, 18-20, 2012).
- 13. Relations for moment generating functions of lower generalized order statistics from doubly truncated continuous distributions and a characterization. "II National Conference on Statistical Inference, Sampling Techniques and Related Areas" organized by Department of Statistics and Operations Research Aligarh Muslim University, Aligarh, India (February 11 12, 2012).
- **14.** Relations for moments of on lower generalized order statistics from J-shaped distribution and its characterization. "National Conference on advances and applications in Statistics" organized by Department of Statistics Panjab University, Chandigarh, India (February, 20-21, 2012).
- **15.** Moment generating functions of lower generalized order statistics from generalized logistic distributions and its characterization. "National Seminar on New Dimensions in Statistics: Concepts and issues" organized by Department of Statistics Banaras Hindu University, Varanasi, India (March 02-04, 2012).
- **16.** Relations of Dagum distribution based on lower generalized order statistics. "Bhopal Seminar on population development in India" organized by SHYAM Institute Bhopal, India (January, 21-23,

2015).

- **17.** Extended exponential distribution based on order statistics. "Bhopal Seminar on Population Transition in India Challenges and Opportunities" organized by SHYAM Institute Bhopal, India (January, 14-16, 2016).
- **18.** Exponentiated Burr XII distribution: Moments and estimation based on lower record values. "National Conference on Computational Mathematics & Operations Research" organized by BK Birla Institute of Engineering and Technology, Pilani, Rajasthan, India (October, 15-16, 2016).
- **19.** On order statistics, generalized order statistics and dual order statistics from the exponential-geometric distribution. "VIII International Symposium on Optimization and Statistics" organized by Aligarh Muslim University, Aligarh, India (December, 17-20, 2016).
- **20.** The Kumaraswamy-Burr III distribution based on upper record values. "National Seminar on Demographic Dimensions of Sustainable Development in India" organized by SHYAM Institute Bhopal, India (January, 18-20, 2017).
- **21.** Order statistics from Power Lindley distribution and associate inference. "National Seminar on Contemporary Issues in Maternal and Child Mortality in India" organized by SHYAM Institute Bhopal, India (January, 10-12, 2018).
- **22.** Moments properties based on generalized Lindley distribution and associated inference. "International conference on emerging innovations in statistics & operations research" organized by Department of Statistics, M. D. University Rohtak, India (December 27-30, 2018).
- 23. Power Modified Lindley distribution: Properties, classical estimation and regression model with applications "International Conference Recent Advances in Computational Mathematics & Engineering" organized by Department of Mathematics, B K Birla Institute of Engineering & Technology, Pilani, Rajasthan (March, 19-21, 2021).
- 24. Generalized Topp-Leone distribution based on order statistics with application to tissue damage proportions in blood "International Conference (Virtual Mode) on Emerging Trends in Statistics and Data Science in Conjunction with 40th Annual Convention of Indian Society for Probability & Statistics" jointly Organized by the Departments of Statistics of Cochin University of Science & Technology, Cochin, M.D. University, Rohtak University of Kerala, Trivandrum, Bharathian

- University, Coimbatore The Madura College (Autonomous), Madurai (September 7-10, 2021).
- **25.** Inferences for modified Lindley distribution under order statistics with application "An International Conference (Online) on Recent Application of Statistical Techniques and Analysis" Organized by Department of Statistics Banaras Hindu University, Varanasi (December 15-17, 2021).
- **26.** Moments of order statistics of Generalized Topp-Leone distribution with application "Family Planning in India: Relevance, Opportunities, Challenges" organized by SHYAM Institute Bhopal, India (February, 16-17, 2022).
- **27.** Generalized Topp-Leone distribution based on order statistics with application, "Eighth International Conference on Statistics for Twenty-first Century-2022", organized by the Department of Statistics, University of Kerala, Trivandrum (December 16-19, 2022).
- **28.** Analysis of generalized Topp-Leone distribution based on order statistics with application "International Conference on Biodiversity, food security, sustainability climate change", organized by Assam Agicultural University, Jorhat -785013, Assam, India (April 25-28, 2023).
- **29.** Inferences for Poisson Nadarajah-Haghighi Distribution based on Order Statistics with Applications. "Eighth International Webinar on Recent Trends in Statistical Theory and Applications", organized by the Department of Statistics, University of Kerala, Trivandrum (29 June 2023 to 2 July, 2023).

# **Conferences Attended:**

- Satellite conference of International Congress of Mathematician on Mathematics in Science and Technology from 15-17 August 2010 at Delhi.
- 2. International Conference on Recent Trend Material and Devices from October 30-31, 2013 at Amity Institute of Applied Science, Amity University, Noida-201303, India.
- 3. National Education Meet from January 09-10, 2014 at Gandhi Nagar, Gujarat, India.
- 4. Vth National Conference on Statistical Inference, Sampling Techniques and Related Topics from 24-25 March, 2015 at Department of Statistics and Operations Research Aligarh Muslim University, Aligarh - 202 002, India.
- **5.** Young Scientist conference, India International Science Festival from 05-08, October 2018 at Indra Gandhi Pratishthan, Lucknow.
- 6. International conference on Trend in Computational and Cognitive Engineering from 28-30

November, 2019 at Central University of Haryana.

### **Invited Talks/Lectures:**

- Delivered lectures in Eighth International Webinar on Recent Trends in Statistical Theory and Applications, organized by the Department of Statistics, University of Kerala, Trivandrum (29 June 2023 to 2 July, 2023).
- Delivered lectures on testing of hypothesis with R organized by Department of Agricultural Statistics, Assam Agricultural University, Jorhat, Assam (April 26, 2023).
- 3 Delivered lectures in an International Conference on Biodiversity, Food Security, sustainability & Climate Change organized by the Assam Agricultural University, Jorhat, Assam (April 25-28, 2023).
- Delivered lectures in an International Conference on Recent Trends in Statistics and Data Analysis in conjunction with 44<sup>th</sup> Annual Conference of KSA, organized by the Department of Statistics, University of Kerala, Trivandrum (March 31 to April 01, 2023).
- Delivered lectures in a "International Conference on A quest for Egalitarianism: Conundrum of Cast Census" organized by Social Equality Forum, New Delhi (February 10-12, 2023).
- Delivered lectures in a "Advances in Statistical Techniques for Efficient Agricultural Experimentation", organized by the Indian Agricultural Statistical Research Institute (ISARI), New Delhi (January 11-31, 2023).
- Delivered lectures in a "Eighth International Conference on Statistics for Twenty-first Century-2022", organized by the Department of Statistics, University of Kerala, Trivandrum (December 18, 2022).
- 8 Delivered lecture in a "VIII International Workshop on Distribution Theory and its Applications" organized by the Department of Statistics, University of Kerala, Trivandrum (December 13, 2022).
- Delivered four lectures in a "Workshop on the Applications of Statistics in Social Science & Research" organized by the Department of Statistics, Panjab University, Chandigarh (March 30, 2022).
- 10 Delivered four lectures in a "National Workshop on "Research Methodology & Scientific Tools" organized by the Madhyanchal Professional University Bhopal, Madhya Pradesh (June 14-16, 2021).
- Delivered six lectures in a "Short Term Course on Statistical Techniques using R software" organized by the Department of Mathematics and Scientific Computing, National Institute of Technology (NIT) Hamirpur, Himachal Pradesh, India (December 9-14, 2019).
- Delivered two lectures in a Winter School on "Advances in Designing and Analysis of Field Crop Experiments" organized by the Indian Agricultural Statistical Research Institute (ISARI), New Delhi (October 14-November 03, 2019).

- Delivered four lectures in a "National Workshop on Scientific Computing with R in Gravitational Theory" organized by the Department of Mathematics and Statistics, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, Uttar Pradesh (October 14-19, 2019).
- 14 Delivered four lectures in a "National Workshop on Research Methodology & Data Analysis" organized by the Department of Humanities and Social Sciences, National Institute of Technology (NIT) Hamirpur, Himachal Pradesh, India (June 24-30, 2019).
- Delivered four lectures in a "Short Term Course on Data Analysis/SPSS and Minitab" organized by the department of Mathematics, National Institute of Technology, Hamirpur, Himachal Pradesh, India (October, 09-15, 2017).
- 16 Delivered a lecture in a "National Workshop on Inventory and Transportation organized by the department of mathematics and statistics Banasthali University, Banasthali, (March 15 -18, 2012).

#### Session Chair:

- Eighth International Webinar on Recent Trends in Statistical Theory and Applications, organized by the Department of Statistics, University of Kerala, Trivandrum (29 June 2023 to 2 July, 2023).
- An International Conference on Recent Trends in Statistics and Data Analysis in conjunction with 44<sup>th</sup>
   Annual Conference of KSA, organized by the Department of Statistics, University of Kerala, Trivandrum
   (March 31 to April 01, 2023).
- FIAM 2022, organized by Department of Mathematics, Central University of Haryana, India from December, 22-23, 2022.
- 2<sup>nd</sup> International conference on Recent Advances in Computational Mathematics & Engineering organized by Department of Mathematics B.K. Birla Institute of Engineering & Technology, Pilani, Rajasthan, India from 30-31 May 2022.

#### Workshops attended:

- A short term Course on Statistical Analysis Using SPSS from 15-19, 2007 January at Aligarh Muslim University (AMU), Aligarh.
- Instructional conference on singular value Decomposition and its applications from 19-23
   February 2007 at Indian Statistical Institute (ISI), Hyderabad.
- **3.** National Symposium on applications of Statistics and operations Research in Indian Industry from 17-20 December 2007 at Indian Statistical Institute (ISI), Hyderabad.
- 4. Research Workshop in Optimization Theory and Applications from 3-6 September 2008 at Indian

- Institute of technology (IIT), Kanpur.
- A Workshop on Bayesian Technique and its Applications from 1-7 October 2009 at Banasthali University, Banasthali Rajasthan.
- **6.** National Seminar on Time series Modeling From 03-06 Oct. 2009 at Banasthali University, Banasthali (Rajasthan).
- 7. Advanced Training Program (ATP) on Bayesian Statistics Theory and applications from 21-27 December 2009 at DST Centre for Interdisciplinary Mathematical Sciences, Banaras Hindu University (Utter Pradesh).
- **8.** Workshop on Data Analysis with R and SPSS from 01-06 February 2010 at Department of Statistics and Operations Research, Aligarh Muslim University (AMU) Aligarh.
- International workshop on Inverse Problems and Wavelets with Applications to Real World Systems 14 August 2010 at Delhi.
- **10.** National workshop on Modern tools in applied statistics from 4-7 December 2010 at Department of Statistics University of Jammu, Jammu 180 006 (J&K) India.
- **11.** National workshop on Vedic Gadhit on 30 Jan. 2011 at Shri Varshney Mahavidyalaya Aligarh Affiliated to Dr. Ambedkar University Agra.
- **12.** National Workshop on Block Designs and their Applications from 05 Feb. 2011 to 08 Feb. 2011 at Banasthali University, Banasthali (Rajasthan).
- **13.** National Workshop on Inventory and Transportation from 15 -18 March 2012 at Banasthali University, Banasthali (Rajasthan).
- **14.** A Workshop on Reliability and Survival Analysis from 03-05 Dec. 2012 at Indian Institute of Technology Kanpur, India.
- **15.** National Workshop on Advanced Analytical Techniques in Research & Development from 19-20 Dec. 2012 at Amity Institute of Applied Sciences, Amity University Noida, India.
- **16.** One-week residential training program on official statistics from 01-05 January 2018 by National Statistical Systems Training Academy Ministry of statistics and Programme Implementation.
- **17.** National workshop on Statistical Techniques and Data Analysis with R from 19-23 March 2018 at Department of statistics, Central University of Haryana, Mahendergarh.

- **18.** National workshop on Teaching, Learning and Evaluation online with Moodle MOOC platform and open education Resources from 14-16 May 2018 at Department of Education, Central University of Haryana, Mahendergarh.
- 19. One-Week workshop on professional development and capacity building of teachers of higher education institutions from 11-18 March 2019 at Department of Education, Central University of Haryana, Mahendergarh.
- **20.** National workshop on "Science and Technology Sensitization Programme for Women" from 6-7 November 2019 at Central University of Haryana, Mahendergarh.
- 21. National workshop on "Applications of Mathematical and Statistical Tools" from March 20-24, 2021 at Department of Mathematics and Statistics, Central University of Haryana, Mahendergarh.
- **22.** National workshop on "Applications of Statistical Tools in Data Analysis" from March 21-25, 2022 at Department of Statistics, Central University of Haryana, Mahendergarh.
- **23.** One-week residential training program on official statistics from 01-05 August 2022 by National Statistical Systems Training Academy Ministry of statistics and Programme Implementation.
- **24.** One Week Online National Workshop on "Statistical Data Analysis using SPSS & R" from March 20-24, 2023.
- **25.** One Week Online National Workshop on "Mathematical Modeling with Simulation in Applied Science from May, 22-26, 2023.

# Orientation Programme:

- Participated in Orientation Programme from 24-08-2017 to 21-09-2017 organized by UGC Human Resource Development Centre (HRDC), Centre for Professional Development in Higher Education University of Delhi, Delhi-110007 and obtained 'A' grade.
- Participated in Refresher Course in Computational & Mathematical Studies (Computer Science, Mathematics & Statistics) from 29-08-2018 to 19-09-2018 organized by UGC Human Resource Development Centre (HRDC), Jamia Millia Islamia University, New Delhi and obtained 'A' grade.
- 3. Participated in Refresher Course in Mathematical Science from 14-06-2021 to 28-06-2021

organized by Teaching Learning Centre Ramanujan College University of Delhi.

4. Participated in Two-Week Interdisciplinary Refresher Course in Advanced Concept in Developing MOOCS from 06-10-2021 to 20-10-2021 organized by Teaching Learning Centre Ramanujan College University of Delhi.

# Organization of conference and workshop

- One day workshop on statistics and application with SAS software.
- Convener National workshop on Statistical Techniques and Data Analysis with R from 19-23 March 2018.
- Organizing Secretary- National Conference on "Bharat Ka Vigyan me Yogdan" 2020.
- Organizing Secretary- National workshop on "Applications of Mathematical and Statistical Tools" from March 20-24, 2021.
- Convener One Week Online National Workshop on "Applications of Statistical Tools in Data Analysis" from March 21-25, 2022.
- Convener: National webinar on estimating ordered parameters and estimating mean under restrictions in normal exponential populations from February 09, 2022.
- Convener: National webinar on estimation of direction parameters from February, 14, 2022.
- **Convener:** International webinar on an introduction to statistical Meta-Analysis with applications from April 07, 2022.
- Convener: National webinar on "The Rights of Other Backward Classes" from February 07, 2023.
- Co-Convener One Week Online National Workshop on "Statistical Data Analysis using SPSS & R" from March 20-24, 2023.

## **Professional Societies Memberships**

- 1. Indian Society for Probability and Statistics.
- **2.** Kerala Statistical Association (Life Member).

### Ph.D. Thesis Guided/ In Progress

- 1. Mr. Mohammad Samir Farooqi, Some aspect of generalized order statistics order statistics and record values, 2020. at Amity University, Noida (Currently Senior Scientist at ISARI New Delhi).
- 2. Mansoor Rashid Malik, Some moments problems in order statistics, records and generalized order statistics, 2020, at Amity University, Noida (Currently working in an industry, New York).
- Maneesh Kumar, Developing the new probability model and associated inferences based on order statistics, 2022 at Central University Haryana (Currently Assistant Director at Indian Statistical Service).
- 4. Bishal Diyali, Selection of appropriate Lifetime model in the presence of censoring, in progress at Central University Haryana.
- Priya Yadav, Statistical inference and the related problems on life testing and reliability in progress at Central University Haryana.
- 6. Ramendra Yadav, Inferences of some probability models based on order statistics in progress at Central University Haryana.
- 7. Anju Grewal, Some contribution to the life testing models in the Presence of classical and Censoring in progress at Central University Haryana.

#### M.Sc. Thesis Guided

- 1. Gaganpreet Kaur, "Some moments problems in record statistics", Amity University, Noida, 2014.
- Swati Ahuja, "Gender dimensions of employment in India", Amity University, Noida, 2014.
- Tanushree, "Infrastructure and GDP of India", Amity University, Noida, 2014.
- Ravina Manocha, "Effect of domestic violence against women in India due to the factor women's literacy, women's employment and women's exposure to media.", Amity University, Noida, 2014.
- Chantanya Kholi, "Solving India's energy crisis-converting waste into energy.", Amity University, Noida, 2014.
- 6. Rajat Sarker, "Univariate distributions and it applications", Amity University, Noida, 2015.
- 7. Mridusmita Dutta, "Career Perceptions", Amity University, Noida, 2015.
- Shivani Gupta, "Statistical inference for the type I generalized half logistic distribution based on upper

- record values", Amity University, Noida, 2015.
- 9. Kanita Grover, "Statistical inference based on generalized order statistics", Amity University, Noida, 2015.
- Isha, "L-Moments and TL-Moments of univariate distributions", Amity University, Noida, 2015.
- Divya, "Some relations of continuous distribution based on lower and upper record values", Amity
   University, Noida, 2016.
- Shivani Gupta, "Moments and estimation of univariate distribution based on record values", Amity
   University, Noida, 2016.
- Shraddha Sen, "Maximum likelihood estimator of univariate distributions", Amity University, Noida,
   2016.
- 14. Arushi Kalra, "Univariate distribution and its applications", Amity University, Noida, 2016.
- 15. Isha, "Some aspect of order statistics", Amity University, Noida, 2016.
- 16. Kanika Gupta, "Order statistics based on continuous distributions", Amity University, Noida, 2016.
- Shailaja Sethi, "Moments of continuous distributions based on record values", Amity University, Noida,
   2016.
- Preeti Yadav, "Higher moment of order statistics and related inference", Central University of Haryana,
   2017.
- 19. Deepak, "Inference based on record values", Central University of Haryana, 2017.
- 20. Dinesh Kumar, "Moments properties of order statistics", Central University of Haryana, 2017.
- Kartik Yadav, "A review on some Beta-generated and Mc-Donald distributions", Central University of Haryana, 2018.
- Shiwangi, "Moments properties of order statistics and its applications", Central University of Haryana,
   2018.
- Rajeev Kumar Verma, "Some moments of kth record values and its applications", Central University of Haryana, 2018.
- V.Venkatanarayana Reddy, "Role of bootstrap value in phylogeny analysis", Central University of Haryana, 2018.
- Rishkesh Raman, "New generated continuous family of distribution: Properties and estimation with application", Central University of Haryana, 2019.
- Sapna Yadav, "Estimation of location and scale parameters of some continuous distributions based on order statistics", Central University of Haryana, 2019.
- 27. Dinesh Kumar, "A family of compounding lifetime distributions: Properties and estimation", Central

- University of Haryana, 2019.
- 28. Kammila Jaritha, "Analysis and Visualization of heart disease UCI data in R", Central University of Haryana, 2019.
- 29. Jyoti Yadav, "Gompertz family of distributions and their moments", Central University of Haryana, 2019.
- 30. Poonam, "Moments of some lifetime model based on lower record values", Central University of Haryana, 2019.
- 31. Anuj Kumar, "Multivariate non-parametric test for independence", Central University of Haryana, 2019.
- 32. Nitish Kumar, "Statistical inference of Mixture Families of Distribution: Properties and estimation with Forest and climate change data application.", Central University of Haryana, 2020.
- 33. Sunny, "Analysis Crime Against Women Data Using R", Central University of Haryana, 2020.
- 34. Deeksha Chawla, "Weibull Marshall-Olkin family of distributions: Properties and Estimation", Central
  University of Haryana, 2020.
- 35. Yogesh Kumar, "Stochastic Process: A review", Central University of Haryana, 2020.
- Saloni Goel, "Modified Lindley Family of Distributions: Properties and Estimation with Application",
   Central University of Haryana, 2021.
- 37. Aakansha Kakran, "Moments of Order Statistics and Associated Inference with Application.", Central
  University of Haryana, 2021.
- 38. Saruchi, "Estimation of Scale and Location Parameter of Continuous Distributions Based on Order Statistics", Central University of Haryana, 2021.
- 39. Anju, "Power Lindley Distribution and its Properties Based on Order Statistics", Central University of Haryana, 2021.
- Ramender Yadav, "Estimation of parameters from power modified Lindley and unit generalized inverse
   Weibull distributions.", Central University of Haryana, 2022.
- Suman Pal, "Inferences for record values and record times of some specific distributions', Central University of Haryana, 2022.
- Mahendran V, "Statistical analysis of average sales price of gold and silver in domestic and foreign market", Central University of Haryana, 2022.
- Anju Grewal, "Inference with power exponentiated gamma and exponentiated chen distribution",
   Central University of Haryana, 2022.
- Garima Yadav, "Modified Lindley family of distribution: properties and estimation", Central University of Haryana, 2022.

- 45. Pooja, "Estimation of parameters for Lomax family of distribution based on order statistics with application", Central University of Haryana, 2023.
- 46. Deepika, "Some new probability distributions: properties and estimation with applications", Central

  University of Haryana, 2023.
- 47. Runjun Medhi, "Alpha power transformed family of distributions: Properties and estimation with applications", Central University of Haryana, 2023.
- 48. Vishal Kumar, "Estimation procedures of constant stress accelerated life test for lifetime models", Central University of Haryana, 2023.
- 49. Sweta Yadav, "Inferences of a bounded family of distributions based on order statistics, with applications", Central University of Haryana, 2023.

Administrative Assignments:				
August 22, 2022 to 04 October	Member, Board of Studies, Department of Statistics, Central University			
2023	of Haryana, India			
October2017-September 2022	Chairman Board of Studies, Department of Statistics, Central University			
	of Haryana, India			
October 2017-September 2022	Chairman Departmental Research Committee in Statistics, Department			
	of Statistics, Central University of Haryana, India			
Academic Session	Chairman Academic Audit Committee, Department of Statistics, Central			
(2017 –2022)	University of Haryana, India			
Jun 2018-31 August 2023	Member, School Board of School of Physical and Mathematical			
	Sciences, Central University of Haryana, India.			
August 2016	Special invitee Member, Board of Studies of Department of Statistics,			
	Central University of Haryana, India			
2017-October2022	Chairman of Admission committee, Department of Statistics, Central			
	University of Haryana, Mahendergarh.			
October 2017-October 2022	Chairman of Moderation committee, Department of Statistics, Central			
	University of Haryana, Mahendergarh.			

July 2017 to July 2018	Member of Unnat Bharat Abhiyan Cell Central University of Haryana, India
July 2018 to September 2022	Member of book reading club, Central University of Haryana, India
October 2017-August 2022:	Head/TIC, Department of Statistics, Central University of Haryana, India.
December 2017- June 2018	Center superintendent Department of Statistics, Central University of Haryana, India.
July 2018-1 Sep. 2023	Member, Research Advisory Committee, Department of Education, Central University of Haryana, India.
July 2012-July 2015	Member, Board of Studies, Department of Statistics, Amity University Noida, India.
July 2014- July 2016	Member, Departmental Research Committee in Statistics, Department of Statistics, Amity University Noida, India
Academic Session (2012 – 2014 & 2014-2016)	Member, Academic Audit Committee, Department of Statistics, Amity University Noida, India
August 2012 to June 2016	Program Coordinator of the Graduate and Post Graduate Programs in Department of Statistics, Amity University, Noida.

(Signature of Faculty Member)