



Name: MANISHA PAL
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Biographical Sketch

Professor (Dr.) Manisha Pal has taught in the Department of Statistics, University of Calcutta for a period of 39 years 4 months. She has been the Head of the Department for two terms, and has also been the Convener of the Ph.D. Research Advisory Committee in Statistics for a period of 5 years. She has visited universities/Institutes in India and USA, UK, Thailand, Bangladesh, Nepal to deliver invited talks in conferences/departments and also for collaborative research. She has been involved in organising many national and international conferences/symposia. She has published 128 research articles in peer-reviewed international and national journals of repute. She has served as an Expert in the recruitment/interview Boards of Union Public Service Commission (UPSC) and has also been associated with the Staff Selection Commission, Eastern Region, Government of India. She has been awarded the Siksha Ratna award by the Department of Higher Education, Govt. of West Bengal, and the International Distinguished Research Excellence Award 2021 in Statistics by Center for Professional Advancement, India She is presently the President of Calcutta Statistical Association, and one of the Editors of the journals CSA Bulletin and IAPQR Transactions. She is also an Elected Fellow of the West Bengal Academy of Science and Technology, and is a presently a Council member of the Academy. She is also an Executive Council member of Society of Statistics, Computer and Applications.

Presently she is a Senior Professor in the Department of Statistics, St. Xavier's University, Kolkata.

Areas of Specialisation and Research

Operations Research, Reliability Inference, Optimization Techniques, Designs of Mixture Experiments, Sequential Estimation

Teaching Experience

Topics taught in previous university: Linear Algebra, Theory of Estimation, Multivariate Analysis, Statistical Decision Theory, Operations Research, Optimization Techniques, Advanced Parametric Inference, Reliability Theory, Statistical Quality Management

Presently teaching: Theory of Estimation, Sampling Techniques.

Administrative Responsibility

Has been involved in administrative matters of the Department of Statistics, University of Calcutta during her tenure in the Department of Statistics, University of Calcutta.

Publications

Book(s) Authored/Edited

1. (2014) **Optimum Mixture Experiments** – Bikas K.Sinha, N.K.Mandal, Manisha Pal, P.Das: Lecture Notes in Statistics (Vol. 1028), Springer.

Chapter/Article published in Books

1. (2021) **Statistical Design Issues for fMRI Studies: A Beginner's Training Manual**. (Authors: Bikas K Sinha., N.K. Mandal, Manisha Pal.) A chapter in **Methodology and Applications of Statistics** (A Volume in Honor of C.R. Rao on the Occasion of his 100th Birthday- editors Barry C. Arnold, NarayanaswamyBalakrishnan, Carlos A. Coelho). Contributions to Statistics, Springer.
2. (2018) **Optimum designs of pharmaceutical experiments with relational constraints on the mixing components**. (Authors: Manisha Pal, Nripes K Mandal and Bikas K Sinha.) A chapter in **Advances in Growth Curve and Structural Equation Modelling**(Topics from the Indian Statistical Institute on the 125th Birth Anniversary of PC Mahalanobis; editor RatanDasgupta). Springer.
3. (2018) **Growth Models for Repeated Measurement Mixture Experiments: Optimal Designs for Parameter Estimation and Growth Prediction**.(Authors: Manisha Pal, Nripes K Mandal and Bikas K Sinha.) A chapter in **Advances in Growth Curve and Structural Equation Modeling** (Topics from the Indian Statistical Institute—Proceedings 2017; editor Ratan Dasgupta). Springer.

Article published in Peer-reviewed journals (Given 20 selected articles)

1. Manisha Pal, N.K. Mandal, H.K. Maity: D-optimal design for estimation of optimum mixture in a three-component mixture experiment with two responses –*Comm. in Statistics - Simulation and Computation* (2021), published online on 15 March, 2021. <https://doi.org/10.1080/03610918.2021.1897619>.
2. Manisha Pal and N.K. Mandal: Optimum mixture designs for log-logistic dose-response model with mixture of two similar compounds - *Comm. in Statistics – Simulation and Computation* (2018), 47(3). <https://doi.org/10.1080/03610918.2017.1291965>.
3. S.P. Mukherjee and Manisha Pal: Reliability improvement through designed experiments –*Journal of Applied Probability and Statistics* (2017), Vol.12, No. 1, 1-9.
4. Manisha Pal, N.K. Mandal and M.L. Aggarwal: A-optimal designs for optimum mixture in an additive quadratic mixture model –*Statistics* (2017), Volume 51, Issue 2.
5. N.K. Mandal, Manisha Pal, B.K. Sinha and P. Das: Optimum mixture designs in a restricted region –*Statistical Papers* (2015), Volume 56, Issue 1, 105-119.
6. Manisha Pal and Montip Tiensuwan: Beta Transmuted Weibull Distribution- *Austrian Journal of Statistics* (2014), Vol. 43, No. 2.
7. Avik Biswas, Rajesh Panigrahi, Manisha Pal, Subhasis Chakraborty, Prasun Bhattacharya, Shekhar Chakrabarti, Runu Chakravarty: Shift in the hepatitis B virus genotype distribution in the last decade among the HBV carriers from Eastern India: possible effects on the disease status and HBV epidemiology –*Journal of Medical Virology* (2013), Vol. 85, Issue 8, 1340-1347.
8. N.K. Mandal and Manisha Pal: Maximin designs for the detection of synergistic effects – *Statistics and Probability Letters* (2013), Vol. 83, No.7, pp. 1632-1637.
9. Manisha Pal and N.K. Mandal: Optimum designs for estimation of optimum amount and proportions in a quadratic mixture-amount model –*Communications in Statistics – Theory and Methods* (2012), Vol. 41, Issue 11: 1989–1999.

10. Manisha Pal and Sujan Chandra: A deterministic inventory model with permissible delay in payment and price discount on backorders –*Opsearch*(2012), 49(3):271–279.
11. DyutimanMukhopadhyay, Alex C. Varghese, Manisha Pal, Sudip K. Banerjee, Asok K. Bhattacharyya, Rakesh K. Sharmaand Ashok Agarwal: Semen quality and age-specific changes: A study between two decades on 3729 male partners of couples with normal sperm count and attending an andrology laboratory for infertility-related problems in an Indian city –*Fertility and Sterility* (2010), Vol. 93, Issue 7, 2247–2254.
12. Manisha Pal and N.K. Mandal: Optimum designs for estimation of optimum point under cost constraint – *Journal of Applied Statistics* (2009), Vol. 36, No. 9.
13. N.K. Mandal and Manisha Pal: Minimax designs for optimum mixtures – *Statistics and Probability Letters* (2008), Vol. 78, No. 12.
14. S. Nadarajah and Manisha Pal: Explicit expressions for moments of Gamma order statistics – *Bulletin of Brazilian Mathematical Society* (2008), Vol. 39, No.1. (Co-author)
15. Manisha Pal and Sanjoy Kumar Ghosh: An inventory model with stock dependent demand and general rate of deterioration under conditions of permissible delay in payments –*Opsearch* (2007), Vol. 44, No. 3.
16. Manisha Pal and N.K. Mandal: Optimum designs for optimum mixtures –*Statistics and Probability Letters* (2006), Vol. 76, No. 13.
17. Manisha Pal, M.Masoom Ali and J. Woo: Exponentiated Weibull distribution – *Statistica* (2006),Vol. LXVI, No.2.
18. Manisha Pal, M.Masoom Ali and J. Woo: Estimation and testing of $P(Y>X)$ in two-parameter exponential distributions – *Statistics* (2005), Vol. 39, No.5.
19. Manisha Pal and S.S. Dutta: A stocking cum pricing model under the effect of consumer behaviour – *Calcutta Statistical Association Bulletin* (2003), Vol. 54, Nos. 213-214.
20. S.P. Mukherjee and Manisha Pal: Robustness of some inventory policies – *Ricerca Operativa* (1988), Vol. XVIII, No. 46.