

Dr. Amit Singh Nayal

Designation: Statistical Assistant

Email. Id: amitnayal009@gmail.com

About

Dr. Amit Singh Nayal is a Statistical Assistant at the All India Institute of Medical Sciences (AIIMS), New Delhi, holding a Ph.D. in Statistics with expertise in Statistical Inference, Biostatistics, Survival/Reliability Analysis, Data Mining, and Distribution Theory. He completed his M.Sc., M.Phil., and Ph.D. in Statistics at Chaudhary Charan Singh University, Meerut, and served as Guest Faculty in the university's Department of Statistics during his doctoral studies (2021–2024). He works across both Bayesian and frequentist frameworks, with applications in biostatistics, and is proficient in R, Python, SPSS, and Stata. He serves as a peer reviewer for several reputed international journals in statistics and allied disciplines.

Awards & Fellowships

- Research Excellence Award – *Chaudhary Charan Singh University, Meerut* (January 2023)
- Qualified the UGC-NET examination in Population Studies 2019, 2020, 2022.
- Qualified the GATE (Statistics) examination 2019.

Publications

1. **Nayal AS**. Comparative study of estimation methods for the Teissier distribution: Performance evaluation and real-world applications. *Int J Model Simul*. 2026;1-21.
2. **Nayal AS**, Ramos PL, Tyagi A, Singh B. Improving inference in exponential logarithmic distribution. *Commun Stat Simul Comput*. 2026;55(5):1496-1520.
3. **Nayal AS**, Singh B, Tyagi A, Chesneau C. Classical and Bayesian inferences on the stress-strength reliability ($R=P(Y<X<Z)$) in the geometric distribution setting. *AIMS Math*. 2023;8(9):20679-20699.
4. **Nayal AS**, Singh B, Tripathi V, Tyagi A. Analyzing stress-strength reliability ($=P(U<V<W)$): A Bayesian and frequentist perspective with Burr-XII distribution under progressive Type-II censoring. *Int J Syst Assur Eng Manag*. 2024;1-20.
5. **Nayal AS**, Tyagi A, Rath S, Singh B. Inferences on stress-strength reliability ($R=P(Y<X<Z)$) for progressively Type-II censored Weibull half logistic distribution. *OPSEARCH*. 2025;62(2):797-832.
6. Tyagi A, Waliya K, Chaudhary A, **Nayal AS***. Reliability analysis for a mixed Poisson-Lindley stress-strength model. *Qual Reliab Eng Int*. 2026.
7. Tyagi A, Singh B, Agiwal V, **Nayal AS***. Analysing random censored data from discrete Teissier model. *Reliab Theory Appl*. 2023;18(1):403-411.
8. Singh B, **Nayal AS**, Tyagi A. Estimation of ($P(Y<Z)$) under geometric-Lindley model. *Ricerche Mat*. 2025;74(3):1261-1292.
9. Singh B, Singh RP, **Nayal AS**, Tyagi A. Discrete inverted Nadarajah-Haghighi distribution: Properties and classical estimation with application to complete and censored data. *Stat Optim Inf Comput*. 2022;10(4):1293-1313.
10. Singh B, Agiwal V, **Nayal AS**, Tyagi A. A discrete analogue of Teissier distribution: Properties and classical estimation with application to count data. *Reliab Theory Appl*. 2022;17(1):340-355.
11. Singh J, Kumar A, **Nayal AS**, Vikal S, Shukla G, Singh A, Singh A, Goswami S, Kumar A, Gautam YK, et al. Comprehensive antifungal investigation of green synthesized silver nanoformulation against four agriculturally significant fungi and its cytotoxic applications. *Sci Rep*. 2024;14(1):5934.
12. Singh K, **Nayal AS**, Chiary HR, Chaudhary A, Kumar S, Sharma B, Singh B, Singh HS, Chaudhary A. Molecular data reveal diversity of *Tylodelphys* spp. (Trematoda: Diplostomidae) in India: With evidence of new lineages, morphology and statistical analysis. *Mol Biol Rep*. 2025;52(1):336.
13. Singh J, Kumar A, Singh A, **Nayal AS**, Pratap D. Green synthesized silver and zinc oxide nanoparticles with antifungal, DNA protection, DNA cleavage, and cytotoxic activities. *Sci Rep*. 2026.