

Dr. Kalyani Sunani, Ph.D.**Assistant Professor (Temporary)**

Department of Statistics

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**Personal Information:**

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IRINS	
Journal Papers	6
Conference Papers	NA
Sponsored Projects & Consultancy	NA
Book and Book Chapters	1
Doctoral Students	NA
Brief Profile	<p>Dr. Kalyani Sunani is a dedicated statistician currently serving as a faculty member in the Department of Statistics at the Central University of Jharkhand from September 30, 2024. Prior to this role, she contributed her expertise as Guest Faculty of Statistics in the Department of Statistics at Central University of Odisha, Koraput.</p> <p>Dr. Sunani's academic journey includes completing her M.Sc., M. Phil., and Ph.D. in Statistics from the esteemed Universities of Odisha. Her research interests span a variety of topics within the field, focusing on Survey Sampling, Statistical Inference, Machine Learning, Optimization Techniques, Statistical Quality Control and Reliability Theory, and their practical applications. Through her work, she strives to advance statistical methods that can enhance decision-making processes across various domains.</p>

Educational Qualifications:

- **Ph.D. (Statistics)** from Utkal University, Bhubaneswar, Odisha, India in the year 2022.
Topic: Some Efficient Estimators of Finite Population Parameters in Survey Sampling.
- **M.Phil. (Statistics)** from Sambalpur University, Sambalpur, Odisha, India in the year 2016.
Topic: Inventory Pricing Policy and Delay in Payments
- **M.Sc. (Statistics)** examination from Sambalpur University, Sambalpur, Odisha, India in the year 2014.
- **B.Sc. with Physics, Mathematics and Chemistry** from Sambalpur University, Sambalpur, Odisha, India in the year 2012.

Courses Taught:

B.A. /B.Sc., M.A. /M.Sc.

Professional Experience

- Assistant Professor (Temporary) of Statistics at Department of Statistics at Central University of Jharkhand, Ranchi, Jharkhand (September 30, 2024 to till date).
- Guest Faculty in the Department of Statistics at Central University of Odisha, Koraput, (August 1, 2022 to September 27, 2024).

Research and Teaching Interests

- Sampling Techniques
- Statistical Inference
- Statistical Quality Control and Reliability Theory
- Linear Algebra
- Design of Experiments
- Basic Statistics and Probability
- Machine Learning

Articles Published

1.	Sunani, K and Bhoi, B. (2023). Comparison of Different Existing Estimators for Estimating Finite Population Mean: A Simulation Study. <i>Science and Culture</i> , 89, (7-8), 284-287.
2.	Dash, P. and Sunani, K. (2022). Estimation of Finite Population Mean Using An Improved Class of Mixed Estimators with Two Auxiliary Variables. <i>Asian Research Journal of Mathematics (ARJOM)</i> , 18(3), 37-49. ISSN: 2456-477X.
3.	Dash, P. and Sunani, K. (2022). An Improved Class of Mixed Estimators of Population Mean under Double Sampling. <i>Indian Journal of Science and Technology</i> , 15(7), 276-291. ISSN: 0974-6846 (Print), ISSN: 0974-5645 (Online).

4.	Dash, P. and Sunani, K. (2020). A Dominating Class of Mixed Estimators for Estimating Finite Population Mean under Double-Sampling Scheme. <i>Dogo Rangsang Research Journal</i> , 10(9:2), 91-104. (ISSN : 2347-7180)
5.	Dash, P. and Sunani, K. (2019). Estimating Population Proportions By Using Calibration Estimators. <i>International Journal of Agricultural and Statistical Sciences (IJASS)</i> , 15(1), 249-254. (ISSN : 0973-1903)
6.	Dash, P. and Sunani, K. (2019). Estimation of Finite Population Variance Using a Family of Exponential Estimators. <i>International Journal of Research and Analytical Reviews (IJRAR)</i> , 6(1), 1200-1206. (E-ISSN 2348-1269, P- ISSN 2349-5138)

Books and Chapters

- Dash, P. and **Sunani, K.** (2024). Estimation of Finite Population Mean by an Improved Ratio-type Estimator using Coefficient of Variation of Study Variable. *Survey Sampling in Research*, authored by Nirupama Sahoo and published by Biblia Impex pvt. Ltd.

Seminar/ Workshop/ Conference Participation:

Workshop

1. Participated in the *Ten Days Research Methodology Course for Ph.D. students in Social Science* from 24th July, 2017 to 02nd August, 2017 organized by the P.G. Teaching Department of Statistics, Utkal University, Vani Vihar, Bhubaneswar and sponsored by the *Indian Council of Social Science Research (ICSSR)*, New Delhi.
2. Participated Pre-Conference Workshop on “*Modern Regression Methods Using R*” organized by the P.G. Department of Statistics, Utkal University, Odisha in conjunction with *Indian Society for Probability & Statistics (ISPS)* on 20th December, 2019.

International Conference:

1. Presented a paper entitled “*A Linear Combination of Estimators for Estimating Finite Population Mean using Two Auxiliary Variables in Two-Phase Sampling Scheme*” in the International Conference on “*Recent Advances in Statistics and Data Science for Sustainable Development*” organized by the P.G. Department of Statistics, Utkal University, Odisha in conjunction with Indian Society for Probability & Statistics (ISPS) during 21-23rd December, 2019.
2. Presented a paper entitled “*A pooled Estimator for Estimating Finite Population Mean using Two Auxiliary Variables*” in the International Conference on “*Next Generation Management*” (ICNGM-2019) held on 15th & 16th March, 2019 at Regional College of Management (RCM), Bhubaneswar.

National Conference:

1. Presented a research paper entitled “*An Improved Class of Ratio-type Estimators for Population Mean of a Finite Population*” in “One Day National Seminar on Role of Statistics in Emerging India @2047: A Multidisciplinary Approach” Organized by Department of Statistics, Central University of Odisha, Koraput on 18.03.2024
2. Presented a research paper entitled “*Estimation of Finite Population Mean by Improved Ratio-type Estimators using a Coefficient of Variation of Study Variable*” in “One Day National Seminar on Role of Statistics in Emerging India @2047: A Multidisciplinary Approach” Organized by Department of Statistics, Central University of Odisha, Koraput on 18.03.2024.
3. Presented a paper entitled “*An Improved Exponential Ratio type Estimators of Finite Population Mean using Auxiliary Variable*” in the National Conference on Statistics and Data Science for Progress and Prosperity on August 23-24, 2024 organized by Department of Statistics, Utkal University, Bhubaneswar.
4. Presented a paper entitled “*A Class of Ratio-Cum-Dual to Product Estimator for Estimating Finite Population Mean using Double-sampling*” in the National Seminar held on 12th March, 2020 organized by the Department of Statistics, Sambalpur University, Odisha.
5. Presented a research paper entitled “*On a Class of Calibration Estimators for Estimating Population Proportion Using information on a binary auxiliary attribute*” in the Two-Days National Seminar organized by the P.G. Department of Statistics, Utkal University during 15-16th March, 2019.
6. Presented a paper entitled “*Estimation of Population Variance using some modified Exponential Estimators under SRSWOR Scheme*” in the National Seminar held on 22nd February, 2019 at Department of Statistics, Ravenshaw University, Cuttack, Odisha
7. Presented a research paper entitled “*A Review of Some Calibration Estimators for Estimating Population Proportion*” in the UGC Sponsored National Seminar-cum-Skilled-Based Workshop on Statistical Computing using R Software organized by the P.G. Department of Statistics, Utkal University, Bhubaneswar, during 27-28 March, 2017.

Life Members

- Indian Society for Probability and Statistics (ISPS)

Awards and Honors

- Rajiv Gandhi National Fellowship from University Grants Commission, Govt. of India for M. Phil. and Ph.D. (2016).

Any Other Information

Skills

1. Working knowledge of Statistical software/Packages viz. SPSS, C, C++, MatLab, R, Python, Scilab and Latex.