Nirajan Bam, PhD

Assistant Professor

Department of Mathematical and Physical Sciences

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OVERVIEW

Assistant Professor of Statistics at Miami University, Ohio, United States.

APPOINTMENTS

Assistant Professor   2023-Present

Department of Mathematical and Physical Sciences, Miami University, Ohio, USA

Graduate/Teaching Assistant   2017-2023

Department of Applied Statistics and Research Methods, University of Northern Colorado, Greeley, USA

- Instructor of Record, Introduction to Statistical Analysis (2017-2023)
- Teaching Assistant for MS and PhD-level Courses: Categorical Data Analysis, Linear Models, Time Series Analysis, and Applied Bayesian Statistics (2021-2023)

Assistant Professor of Statistics   2012-2021

Pokhara University, Nepal

- Course Coordinator for Business Statistics, Data Analysis and Decision Modeling, Business Research, Probability and Statistics for MBA, BBA, and BE programs (2012-2021)

Adjunct Assistant Professor of Statistics   2011-2012

Tribhuvan University, Central Department of Statistics, Nepal

- Taught Mathematics for Statistics to MSc-level Students

Adjunct Assistant Professor of Statistics   2010-2012

ACE Institute of Management, Kathmandu, Nepal

- Taught Business Statistics and Data Analysis and Decision Modeling

Adjunct Assistant Professor of Statistics   2008-2010

New Summit College, Tribhuvan University, Nepal

- Taught Probability and Statistics, Sampling, and Non-Parametric Statistics

ORISE Research Fellow Summer 2022
,
U.S. Food and Drug Administration (FDA), Center for Drug Evaluation and Research (CDER)

- Major Role: Text mining and statistical modeling

Internship Fall 2019
National Institute of Health, All of us Research Program

- Major Activity: Identifying Suitable Statistical Models for Quasi-Experimental Research Design

EDUCATION

Doctorate in Applied Statistics 2019-2023
University of Northern Colorado, Department of Applied Statistics and Research Methods
  Dissertation Topic: Bayesian Approach to Unit Lindley Mixed Model

MS in Applied Statistics 2017-2019
University of Northern Colorado, Department of Applied Statistics and Research Methods

M.Sc. in Statistics 2004-2006
Tribhuvan University, Nepal
  Gold Medalist

B.Sc. in Statistics 2000-2004
Tribhuvan University, Nepal

Non-Degree Program 2014
Faculty Development Program (FDP), Indian Institute of Management, Ahmadabad, India

SELECTED PEER-REVIEWED JOURNAL PAPERS [Google Scholar]

1. Bam, N., & Sapkota, L. P. (2025). *New Unit Lindley Mixed Model: Applications to COVID-19 and Child Mortality Rates under the Bayesian Approach. Health Serv Outcomes Res Method.* https://doi.org/10.1007/s10742-025-00365-6

2. Sapkota, L. P., Bam, N., & Kumar, V. (2025). *A New Exponential Family of Distributions with Applications to Engineering and Medical Data. Scientific Reports*, **15**, 33649. https://doi.org/10.1038/s41598-025-14890-4

3. Sapkota, L. P., Bam, N., & Kumar, V. (2025). *New Bounded Unit Weibull Model: Applications with Quantile Regression. PLoS ONE*, **20**(6), e0323888. https://doi.org/10.1371/journal.pone.0323888

4. Sapkota, L. P., Bam, N., Kumar, P., & Kumar, V. (2025). *A Systematic Comparison of Ten Odd-G Family-Based Probability Models. Contemporary Mathematics*, **6**(4), 5217–5254. https://ojs.wiserpub.com/index.php/CM/article/view/7828

5. Sapkota, L. P., Bam, N., Kumar, P., & Kumar, V. (2025). *New Logistic Family of Distributions: Applications to Reliability Engineering. Axioms*, **14**(8), 643. https://doi.org/10.3390/axioms14080643

6. Bam, N., & Hitigala Kaluarachchilage, P. K. (2025). *Comparison of the Unit-Lindley and Beta Mixed Model: A Bayesian Perspective. Austrian Journal of Statistics.* (In Production)

7. Bam, N., & Sapkota, L. P. (2025). *New Unit Lindley Mixed Model: Applications to COVID-19 and Child Mortality Rates under the Bayesian Approach. International Journal of Advanced and Applied Sciences.* (In Production)

8. Kumar, P., Sapkota, L. P., Kimar, V., & Bam, N. (2025, January 22). Exploring the new exponentiated inverse Weibull distribution: Properties, estimation, and analysis via classical and Bayesian approaches. Contemporary Mathematics, 6(1), 827-849. https://ojs.wiserpub.com/index.php/CM/article/view/6255

9. Sapkota, L. P., Kumar, P., Kumar, V., & Bam, N. (2024). Estimation and Analysis of Trigonometric Models under Bayesian Approach. *Pakistan Journal of Statistics and Operation Research*, *20* (3), 587-613. https://doi.org/10.18187/pjsor.v20i3.4615

10. Bam, N. (2023). Analysis of country-level risk factors of COVID-19 mortality across countries of Asia: A generalized estimating equation approach. *Journal of Health Management, 25*(4), 1018-1028. https://doi.org/10.1177/09720634221150866

11. Bam, N. (2023). Affective commitment among university faculty members in Nepal: A structural equation modeling approach. *Prithvi Academic Journal, 6,*74-91. https://doi.org/10.3126/paj.v6i1.54614

12. Bam, N. (2023). Analysis of Tourists' Length of Stay in Pokhara, Nepal. *Advances in Hospitality and Tourism Research (AHTR). 1*(11)https://doi.org/10.30519/ahtr.1073732

13. Bam, N., & Kunwar, A.(2020). Tourist Satisfaction: Relationship Analysis among its Antecedents and Revisit Intention. *Advances in Hospitality and Tourism Research (AHTR). 1*(8) https://doi.org/10.30519/ahtr.519994

14. Bam, N., Badal. M., & Bhattarai R. (2018) Factors affecting organizational commitment among university faculties of Nepal: A structural equation modeling approach. *Journal of Human Resource Management. 1*(21). Link

15. Bam. N., Thagurathi. R., & Shrestha B.(2018). Stock price behavior of Nepalese commercial banks: random walk hypothesis. *Journal of Business and Management. 5.* https://doi.org/10.3126/jbm.v5i0.27387

BOOK CO-AUTHORED

- Sthapit, A.,Khanal,S., Poudel, D., Tamang, G., Uprety,P., Bam, N. (2015). Data Analysis & Modeling *Asmita Books Publishers & Distributors (P) Ltd. Kathmandu*

- Joshi, P.R, Uprety, P., Thagurathi R., Nepal S., Khadka, B, <u>Bam,N.</u> (2015). Business Statistics Buddha Academic Enterprises Pvt. Ltd. Kathmandu

INTERNATIONAL CONFERENCE PRESENTATIONS

1. Bam, N., & Sapkota, L. P. (2024, August 3-8). *New unit Lindley mixed model: A Bayesian approach.* Joint Statistical Meeting 2024, Oregon Portland, United States.

2. Bam, N., & Shafie, K. (2023, August 5-10). *Bayesian Approach to Unit Lindley Mode;.* Joint Statistical Meeting 2024, Toronto, Ontiro, Canada.

3. Bam, N., & Shafie, K. (2022, August 6-11). *Analysis of COVID-19 death rates across the countries of Europe: A mixed Beta regression model.* Joint Statistical Meeting 2022, Washington D.C., United States. https://ww2.amstat.org/meetings/jsm/2022/onlineprogram/AbstractDetails.cfm?abstractid=323857

4. Bam, N. (2021, August 8-12). *Modeling tourists' overnight stay in Pokhara, Nepal: Zero truncated negative binomial and ordinary least square regression approach.* Presented at Virtual Joint Statistical Meeting 2021. https://ww2.amstat.org/meetings/jsm/2021/onlineprogram/AbstractDetails.cfm?abstractid=317833

RESEARCH GRANTS

- University Grant Commission (UGC), Nepal, "Factors Affecting Job Satisfaction of Academic Staffs", NPR140,000 (PI), (Award # SRDIG-72/73-Mgmt-02).2016 - 2017

- Pokhara University Research Council (PURC), Nepal, "Factors Affecting Tourists' Satisfaction and Revisit Intention", NPR150,000 (PI), (Award # FSY 2072-73).2016 - 2017

- University Grant Commission (UGC), Nepal, "Tracer Study of Graduates of Pokhara University", (Consultant Statistician), (2016 - 2017).

AWARDS

- Academic Excellence Award 2022
  Awarded by College of Education and Behavioral Science, University of Northern Colorado, Greeley, USA

- Academic Excellence Award 2021
  Awarded by College of Education and Behavioral Science, University of Northern Colorado, Greeley, USA

- Nepal Vidhya Bhushan Kha 2011(Nepal Education Award)
  Awared by Hon. President of Nepal

SERVICE ROLES

Service to the Department of Mathematical and Physical Science, Miami University

1. Member of Curriculum and Assessment Committee (2023, August- Present)

2. Student Advisor for Statistics and Data Science Discipline (2023, August- Present)

3. Member of Website Committee (2024, August- Present)

Service to the College of Liberal Arts and Applied Science

1. Member of CLAAS Grievance (2024, August- Present)

Service to the Department of Applied Statistics and Research Methods, University of Northern Colorado, Greeley, Colorado, USA

1. Assistant Director, Statistics Support Center (2021-2023)

Service to the School of Business, Pokhara University, Nepal

1. Chair of Graduate Research Project Committee (2014-15)

2. Member of Graduate Research Project Committee (2015-16)

3. Member of Standing Committee of Management Subject Committee (2014-2016)

4. MBA Program Coordinator (2012-2014)

Service to the Pokhara University, Nepal

1. Senate Member of Pokhara University, Nepal (2015-2017)