

# Online Workshop on Practical Training in Univariate and Bivariate Analysis with SPSS

A comprehensive overview of the basic concepts and techniques used in analyzing data using SPSS software

December 17 to December 23, 2023

Join our Official WhatsApp group



Organized by

**Advances in Geographical Research**

**Kolkata office**

Jadavpur 8B, Kolkata- 700 032, West Bengal, India

**Chennai Office**

309, Srivenkateshwar, 54 Peeli Ammon Koil,  
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**ADVANCES IN  
GEOGRAPHICAL  
RESEARCH**

Making the Complex Simple

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## About Advances in Geographical Research

Advances in Geographical Research (AIGR) is an online research training institute that offers courses and hands-on training programs aimed at providing individuals with the skills and knowledge necessary to conduct research effectively and efficiently. AIGR provide a flexible and convenient alternative to traditional in-person training, allowing individuals to learn at their own pace and on their own schedule. AIGR provides certified professional training, development opportunities and assured innovative research ideas for the next generation of researchers, such as research design and methodology, data collection and analysis, and the use of various research tools and software.

Our motto is making the complex simple. Led by some of the world's leading researchers, who provide key insights from their experience, our training programs support career development and encourage our researchers to excel in their field.



## Resource Person

**Dr. Baidyanath Pal**

Associate Scientist - C (Former),  
Indian Statistical Institute (ISI), Kolkata

The workshop is privileged to have Dr. Baidyanath Pal as the primary resource person. Dr. Pal's academic journey is a testament to his dedication and expertise in the field of statistics. With an MSc. in Mathematics and a Ph.D. in Statistics, his foundational knowledge is robust and comprehensive. His tenure as an Associate Scientist - C at the revered Indian Statistical Institute (ISI) in Kolkata showcases his dedication to both academia and research, emphasizing his authority in the realm of statistics. Dr. Pal's expertise traverses various intricate domains within statistics, including Biological Anthropology, Factor Analysis, Statistical Analysis, PASW Statistics, and Anthropometric Analyses. His proficiency extends beyond theoretical understanding, encompassing a practical mastery of software tools such as SPSS, AMOS, STRATA, R, and Python. This breadth of knowledge is a testament to his versatile approach to statistical analysis, grounded in both traditional methodologies and contemporary technological applications. Moreover, Dr. Pal's contributions to international peer-reviewed journals are extensive and noteworthy. His publications not only highlight his authority in the field but also emphasize his ability to communicate complex statistical concepts effectively, contributing to the wider academic discourse. As the lead resource person for this workshop, Dr. Baidyanath Pal's guidance promises an in-depth exploration of statistical techniques, practical software applications, and a nuanced understanding of statistical analysis, all underpinned by his extensive experience, scholarly contributions, and a passion for imparting knowledge.

## • Training Benefits

- **Enhanced data analysis skills:** Develop a strong understanding of univariate and bivariate analysis techniques using SPSS, enabling you to analyze data with confidence.
- **Practical application:** Gain hands-on experience working with real-world datasets using SPSS software, strengthening your ability to apply analysis techniques effectively.
- **Improved research capabilities:** Acquire the skills and knowledge necessary to conduct robust statistical analysis for research projects, leading to more accurate and reliable results.
- **Effective interpretation and reporting:** Learn how to interpret and communicate analysis findings in a clear and concise manner, enhancing the quality and impact of research publications.
- **Increased publication success:** Receive expert guidance on preparing and publishing analysis results in international peer-reviewed journals, increasing the likelihood of successful publication.
- **Professional growth and recognition:** By mastering univariate and bivariate analysis with SPSS, you can enhance your expertise as a researcher, contributing to your professional growth and recognition in the academic community.

## Language

Lecture and training materials are in English.

## Registration fee

**India:** 1999 INR (₹),  
**Other countries:** 30 USD (\$)

## Important dates

**Class Start:** 17th December 2023  
**Early Bird Registration close:** 1 st December, 2023  
**Admission Last Date:** 15th December 2023  
**Class Durations:** 2 hours (Each day)  
**Time:** 7:30 PM to 9-30 PM (GMT +5.30)

## Online Platform

**Zoom** (Lifetime recorded sessions access)

**Email:** [aigeo.research@gmail.com](mailto:aigeo.research@gmail.com)

**Mobile:** +91 9932341616

**Website:** [www.aigr.co.in](http://www.aigr.co.in)

**Android App:**

[https://play.google.com/store/apps/details?  
id=com.knorish.AIGR](https://play.google.com/store/apps/details?id=com.knorish.AIGR)

## Course Overview

Join our Online Workshop: Practical Training in Univariate and Bivariate Analysis with SPSS: A comprehensive overview of the basic concepts and techniques used in analyzing data using SPSS software

The one-week online workshop, titled "**Practical Training in Univariate and Bivariate Analysis with SPSS**," offers an extensive curriculum aimed at providing participants with a comprehensive understanding of fundamental statistical concepts and their practical application using the SPSS software. The structured curriculum, organized over 7 days, covers a wide range of statistical techniques essential for data analysis.

**Day 1:** Foundation: Introduction to statistics and familiarization with SPSS for data management.

**Day 2:** Exploratory Data Analysis: Graphical representation, descriptive statistics, and distribution analyses.

**Day 3:** Hypothesis Testing and Bivariate Analysis: Understanding various statistical tests and measures.

**Day 4:** Correlation and Regression: Exploring correlation, simple and multiple regression, and their diagnostics.

**Day 5:** Parametric Tests: T-tests, ANOVA, and ANCOVA for comparing means and variance.

**Day 6:** Advanced Analysis: MANOVA, MANCOVA, and non-parametric tests for complex data analysis.

**Day 7:** Submission assignment and Certificate distribution

This workshop is designed to equip participants with a solid foundation in statistical analysis and the practical skills required to navigate and interpret data effectively using SPSS software. With a balanced mix of theoretical understanding and hands-on application, participants can expect to gain a versatile skill set in statistical analysis by the workshop's end.

Download the Android app from the play store: **AIGR**  
<https://play.google.com/store/apps/details?id=com.knorish.AIGR>

## Course Content

The workshop will be divided into seven modules:

### Module 1: Introduction to Statistics & SPSS Data Management

- Introductory Statistics:
  - Data types
  - Measures of Central Tendency
- SPSS Environment:
  - Data View; Variable View
  - Data Management:
    - Preparation, Select, and Split File
    - Computation & Transformation
    - Code and Recode

### Module 2: Exploratory Data Analysis

- Graphical Representation of Data:
  - Histogram, Bar Plot, Line Plot, Pie Chart, Scatter Plot
- Descriptive Statistics
- Measures of Variability, Shape, and Size of Data
- Distribution Analysis:
  - Normal Distribution, Binomial Distribution, and Poisson Distribution
  - Normality tests of data with plots

### Module 3: Hypothesis Testing using Bivariate Analysis

- Cross-tabulation with Chi-Square Test
- Phi and
- Cramer's V
- Eta
- Kappa
- Relative Risk
- Kendalls Tau and
- McNemar Test

### Module 4: Correlation and Linear Regression

- Simple Regression and its diagnostics
- Multiple Regression and its diagnostics

### Module 5: Parametric Tests

- t-test (One Sample, Paired Sample & Independent Samples)
- ANOVA
- ANCOVA
- MANOVA (One Way and Two-way)
- MANCOVA (One Way and Two-way)
- Repeated Measure

### Module 6: Non-parametric tests

- Mann Whitney U test
- Wilcoxon sign rank test
- One sample run test
- Kruskal-Wallis Test

### Module 7: Valedictory

- Assignment

Certificate distribution

## How to apply

Interested candidates may pay online payment gateway system available on AIGR website. For Indian candidates select **Razorpay** and for other countries must select **Stripe** during payment, Bangladeshi candidates have the option to conveniently pay directly via **bKash** (+8801748985407, after payment mail screenshot: [aigeo.research@gmail.com](mailto:aigeo.research@gmail.com) or **WhatsApp: +91 94751 72399**). For African countries candidates can also pay via **Western Union** (For details SMS +91 94751 72399).

## Contact Us

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**Mobile:** +91 9932341616

**Website:** [www.aigr.co.in](http://www.aigr.co.in)

**Course Page:** <https://aigr.co.in/page/univariate-and-bivariate-analysis-with-spss-3qsfx?edit=true>