



# FUNDAMENTALS OF RESEARCH METHODOLOGY & DATA ANALYSIS WITH SPSS

19<sup>th</sup> - 23<sup>rd</sup> Jan 2026, 6:30 – 8:30 PM (IST)

Objective of this workshop is to equip the participants with the requisite knowledge and skills for:

- 1. Identifying research gaps through literature review to frame research models
- 2. Determining appropriate sampling technique and sample size
- 3. Proper designing of questionnaire for avoiding reliability & validity issues
- 4. Selection of appropriate data analysis techniques as per objectives
- 5. Using Excel for data cleaning, coding, reverse coding & transformation
- 6. Understanding the basics of hypothesis testing and associated statistics
- 7. Using SPSS for data analysis & writing interpretation of the statistical results

## RESOURCE PERSON

Dr. Anubhuti Dwivedi is an academican and entrepreneur with 25 years of experience in teaching, consulting, and research. She is a doctorate in Economics and double post graduate in Economics & Management with strong background of Mathematics, Statistics and Economics in graduation. She has worked as Dean / Director of various reputed institutions during her illustrious academic career. She is an expert in research methodology and highly skilled in analysis with research software like SPSS, SmartPLS, E-Views, MAXQDA, NVivo and RStudio. She is certified by MAXQDA Academy as Proficient MAXQDA User and has graduated from PLS Academy powered by SmartPLS GmbH, Germany in all basic and advanced modules of PLS-SEM. She is also a certified Mendeley Advisor. Her publications include 6 books, 2 cases published by Case Centre, U.K. and several research papers including those in Scopus, WoS, and ABDC indexed journals. She holds specializations in Advanced Excel and Virtual Teaching from International Universities and has been awarded with The Women of Excellence Award by Business View and recognized as one of the 10 most influential women leaders in Indian Education by Higher Education Digest.

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| Day 1 | Problem Identification, Literature Review – How to perform keyword search using Google Scholar and other databases, Designing Research Framework based on Theory, Framing Objectives and Developing Hypotheses, Sampling techniques and sample size determination  |
| Day 2 | Measurement & Scaling – nominal, ordinal, interval & ratio scales, Concept of Reliability & Validity in a scale, Questionnaire Designing & Scale Development – Process & practical guidelines<br>Basics of Hypothesis Testing – Null & Alternative hypothesis, One tailed and Two tailed tests, Type I and Type II Errors (significance and power of test), Drawing inference from test results. |
| Day 3 | Introduction to major Parametric & Non-Parametric Techniques of Data Analysis, Data Preparation in Excel – Cleaning, Coding, Reverse Coding, Transforming, Making Dummy variables. Working with SPSS – Data Descriptives, Testing Normality, Cross Tabs & Chi-Square Test  |
| Day 4 | Working with SPSS - T-Test, Mann Whitney Test, Wilcoxon Signed Rank Test, ANOVA, ANCOVA, Kruskal Wallis Test, Correlation, Multiple Regression with Interpretation of t-values, p-value, R <sup>2</sup> ; Normality, Multicollinearity and Heteroscedasticity Tests for Regression in SPSS   |
| Day 5 | Working with SPSS - Logistic Regression, Cluster Analysis – Hierarchical, K-Means, Two-Step, Exploratory Factor Analysis, CFA - Construct reliability (Cronbach's Alpha)<br>Introduction to Structural Equation Modelling (SEM) – Constructs, Measurement Model, Structural Model, Path Diagram and Path Coefficients  |

**Key Takeaways:** E-Certificate, Reference Material, Practice datasets, Recordings (1 yr access), EdMaestro Research Forum Membership for query solving any time after the workshop

Contact: +91- 9520172229

Email: [info@edmaestro.in](mailto:info@edmaestro.in)

**Indian Participants Fee: INR 1250**  
 Paytm/GPay/PhonePe to 9897831700  
 IMPS to ANUBHUTI DWIVEDI  
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