

2 Day Certificate Programme @ IITA

# Research Modelling using Excel and R



**Dates:**

8<sup>th</sup> -9<sup>th</sup> March, 2019

**Fee:**

Rs. 1,500 (Incl. of GST)

**Last date of Applying:**  
March 1, 2019

**Venue:**

Department of  
Management Studies,  
IIIT Allahabad.

**Overview:**

Research modelling requires the use of various statistical tools and to facilitate this several tools are available such as **Microsoft Excel and R Studio**. Researchers can use **Microsoft Excel** for carrying out different types of statistical analysis and these enable researchers to make inferences from raw data and help them take quick and effective analysis. A more trending tool currently being used for data analysis is **R Studio**. Not only is this tool trending among research and industry professionals because of its ease of use, but it also offers additional functions which are not available in other tools and packages.

**Objectives:**

The objective of this two (02) day workshop is to acquaint the participants with Microsoft Excel and R Studio by helping them carry out some hands-on exercises from research domain. To cater to all kinds of participants from different functional domains, the research-centric hands-on exercises have been developed in a manner that involves the user solving simple to complex problems by using different research techniques.

**Coverage:**

**DAY 1**

- Introduction to Excel and its Applications
- Basic and Advanced Excel Functions
- File Merging for Data Compilation
- Simple Frequencies for Statistic calculations
- Descriptive Statistics and Correlations
- Two Sampled T-test
- Paired T-test
- Cross-tabulation and Chi-Squared Test of Independence
- One-way ANOVA
- Two-Factor ANOVA without Replication
- Two-Factor ANOVA with Replicates
- F-Test Two-Sample for Variances

**DAY 2**

- T-Test: Paired Two Sample for Means
- T-Test: Two-Sample Assuming Equal Variances
- Z-Test: Two-Sample for Means
- Multiple Regression using Excel: Linear, Logit and Probit regression
- Import Data, Copy Data from Excel to R CSV & TXT Files
- Basic Data Analysis in RStudio
- Histograms in R
- Multiple Regression using R: Linear, Logit and Probit regression
- Stepwise Regression in R - Combining Forward and Backward Selection

**Pedagogy:**

The program would be a mix of lecture, hands on exercises and experience sharing between participants and resource persons.



Department of  
Management Studies,  
Indian Institute of  
Information Technology  
Allahabad

**Resource Persons**

- Dr. Ankit Mahindroo - LM Thapar School of Management, TIET
- Dr. Shailendra Kumar- IITA (Organiser)
- Dr. Utkarsh Goel - IITA (Organiser)

**Contact Information**

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**For Registration:** <https://apply.iita.ac.in/event/register/>  
(Accommodation Facility is available on Payment Basis)