

**Three-days WORKSHOP**  
**on**  
**Introduction to R and Statistical Analysis using R-Studio**

<b>Day</b>	<b>Topic</b>	<b>Time</b>
Day 1	Quick Review of Research Process, Types of Research & Data, Framing of Research Objectives	9:30-11:00
	<i>Tea Break</i>	<i>11:00-11:30</i>
	Review of Literature and Model building and hypothesis formulation	11:30-1:00
	<i>Lunch Break</i>	<i>1:00-2:00</i>
	Measurement and Scale Construction, Reliability and Validity of scales	2:00-3:30
	<i>Tea Break</i>	<i>3:30-4:00</i>
	Pathway to Statistical Analysis	4:00 -5:30
Day 2	Introduction to R & R-Studio, Concept of Variables /Vector/ Packages, Setting Directories, Importing (Excel/SPSS/Stata/SAS) File and Exporting Results, Univariate Analysis using R-Studio	9:30-11:00
	<i>Tea Break</i>	<i>11:00-11:30</i>
	Initial Commands in R-Studio, Summary and SummaryTools package	11:30-1:00
	<i>Lunch Break</i>	<i>1:00-2:00</i>
	Uni-variate and Bi-variate Analysis (Correlation and Covariance Analysis)	2:00-3:30
	<i>Tea Break</i>	<i>3:30-4:00</i>
Day 3	Hypothesis testing (Parametric tests- T-test & One-way ANOVA and Non-Parametric tests: Chi-square test, U-test, H-test)	4:00 -5:30
	Simple Liner Regression and Multiple Regression Analysis, Step-wise Regression	9:30-11:00
	<i>Tea Break</i>	<i>11:00-11:30</i>
	Various Charts in R: Univariate Charts (Bar-chart, Pie chart, Boxplots, Histogram)	11:30-1:00
	<i>Lunch Break</i>	<i>1:00-2:00</i>
	Bi-variate Charts: Clustered Bar plot and Scatter plot	2:00-3:30
	<i>Tea Break</i>	<i>3:30-4:00</i>
Various options for Charts	4:00 -5:30	

**Facilities required:**

- LCD Projector
- Whiteboard or Blackboard

**Resource Person:**

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