



**A.K. Dasgupta Centre for
Planning and Development
Visva-Bharati**
[A Centre sponsored by the
NITI Aayog, Govt. of India]

**37th National Workshop
on**

**Statistical Techniques and Tools for Analysis of
Research and Development data using 'R'**

Date: 5th January to 18th January, 2025

Online Platform: Google Meet

Statistical analysis of data is very important in decision making. Variety of statistical methods are used for data analysis purposes and for which different software programmes are available. It is important that the researchers and also the end-users of research findings know what method is to be used in a particular context, what program is to be used for analyzing their research data. Researchers of different fields collect data from different primary and secondary sources. They need to know the proper way to analyze the data collected or compiled. The most popular package for researchers for analyzing data today is R. Presently R is an open-source programming language used for statistical computing and graphics. The R language is widely used among researchers in science as well as in social science for data analysis and statistical modelling. The cross-platform compatibility of R and its capacity to handle large and complex data sets makes it an ideal tool for academicians to analyse data in their labs. R can be used for simple calculations, matrix calculations, differential equations, optimization, statistical analysis, plotting graphs, etc. Also, it is useful for anybody who wishes to undertake extensive statistical computations and data visualization. The workshop has been designed to orient Faculty members and Researchers in data analysis and programming at an introductory level using R programme.

The Centre invites applications from research scholars, faculty member of colleges and universities, management executives who wish to deepen their understanding on the subject.

This 14-day Programme is designed to familiarize academicians, practitioner and researchers with the statistical research tools and techniques, with special focus on the Software “R” This will augment the skill of the participants to use “R” and enhance the horizon of their research work. The knowledge of modern techniques applied to research is imperative for quality work and this workshop aims to give a comprehensive insight on those and enable researchers and academicians to apply those techniques rightly.

Objective of the Workshop

- To understand the basics of ‘R’, its uses in research.
- To impart knowledge on different statistical techniques through the use of ‘R’.
- To interpret the out-put of the analysis of data done using ‘R’ and to draw valid and meaningful inference from the out-put of ‘R’ so obtained.

At the end of the workshop the participant will be able to learn the following:

- (i) R programing language;
- (ii) Statistical analysis using R programing;
- (iii) How to analyze research data using R programing;
- (iv) How to represent data using basic graphs in R;
- (v) How to extract the cause-and-effect relationship among variables using R

This course would be of particular benefit to:

- Faculties & Teachers
- Consultant and Administrators engaged in Higher Education Institute. [HEI]
- Industry training professionals
- Research Scholars
- Post-graduate Students
- Extension specialists in agriculture, public health and rural development practitioners
- Consultant in development sector

Course Outline

- Introduction to 'R'
- Entering and Editing of Data in R platform
- Reading Data, Manipulating Data, Saving of Data
- Variable, Relationships, Visualizations of data. Coding of data
- Exploratory Data Analysis: Correlations, Regression, Multiple Regression
- Inferential Statistics: z-test, t-test, Chi-square test,
- Analysis of Categorical Data
- Cluster analysis, Factor analysis, Log linear Models, Discriminant Analysis, logistic regression, and other Multivariate Analysis Techniques
- Analysis of data with Repeated Measures
- ANOVA
- Non-parametric statistical tests

Applicants must mail their soft copies of application mentioning their present status on or **before 25th December, 2024** Applicants should mention their contact address, telephone number, e-mail address and institutional affiliation. The application to be addressed to Prof. Debasis Bhattacharya, Chair Professor, A.K. Dasgupta Centre for Planning & Development, Visva-Bharati. **Application must reach vbplanning46@gmail.com within due date.** **Registration fee: Rs.2000/- for Faculties and Rs.1000/- for other participants.** Registration Fee to be paid online. Details of payment will be provided after selection. **The workshop has been designed to be held in "Online mode".** The order of participation in the programme will be made on last come first out basis. The timing of the workshop will be **from 2.30p.m. to 7.30 p.m.**

Important Dates

Last Date for receiving application: 25th December, 2024

Letter of Acceptance: 26th December, 2024

Email for Correspondence: vbplanning46@gmail.com

For Assistance: Call to Sri Daya Shankar Kushwaha, Ph-9474644413

Visit website for other information: akdcentrevisvabharati.org

Application Form

Name

Address

Designation

Permission
from Institution

Yes/No

Institution
Affiliation

Ph. No.

Email

Basic
knowledge on
'R'

Yes/No

Signature of the applicant