

## SYLLABUS

### DATA ANALYSIS AND VISUALIZATION USING R-PROGRAMMING

#### Unit I

**Introduction to R programming:** History of R programming, starting and ending R, R as a scientific calculator, handling package, workspace, inspecting variables, operators and expressions in R, data objects and types, vectors, matrices and arrays, lists and data frames, built-in and user-defined functions, strings and factors, flow control and loops.

#### Unit II

**Introduction to Python programming:** Introduction to Python, NumPy package, Working with Dataset, Data Pre-processing, Classification algorithm

#### Unit III

**Using R for Statistical analysis:** Importing data files, exporting data, graphics in R. Frequency and contingency tables, Correlation, T-tests, Chi-square test, Simple and multiple linear regression.

