



P.S.R. ENGINEERING COLLEGE, SIVAKASI – 626 140.

(An Autonomous Institution, Affiliated to Anna University, Chennai)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE VAC18CS01 – R PROGRAMMING

Course Objectives:

- To understand R-Programming (R Studio) features and basics
- To understand implementation procedures of simple codes
- To learn the R programming skills and supporting packages
- To develop different projects using R Studio.

Course Outcomes:

The Students will be able to

CO1: Get knowledge in R program development tools

CO2: Understand the importance of different programming functions and applications

CO3: Employ and apply various mathematical and scientific problems.

CO4: Learn the programming issues and solutions in development practices.

CO5: Implement multiple mini projects as per their interest.

Course Syllabus:

Day 1: Fundamentals of R language

- Introduction to R
- Why R programming Language
- General properties
- Core characteristics

Day 2: Data types in R language

- Data type Introduction
- Data type examples
- Introduction to variables

Day 3: Operators in R programming

- Arithmetic Operators
- Relational Operators
- Logical Operators
- Assignment Operators
- Miscellaneous Operators

Day 4: Matrix in R programming Language

- Matrix introduction
- Matrix construction
- Addition & Subtraction
- Multiplication & Division

Day 5: Charts & Files

- Graphical procedure introduction
- Plot Function
- Plot using base graphics
- Plot using ggplot2