Introduction

In the present situation of COVID-19 Pandemic, Pillai College of Engineering, New Panvel is organizing a free faculty development program on "R Programming" to enhance the learning skills of faculty colleagues and research scholars in core Engineering and Science subjects. This program facilitates the training for learning R programming.

R is a language and environment for statistical computing & graphics. R is available as Free Software under the terms of the Free Software Foundation's GNU (General Public License) in source code form.

About Pillai College of Engineering

Pillai College of Engineering (PCE) is a flagship institute of Mahatma Education Society (MES), which began its endeavor of Education for all in Chembur English School in 1970. PCE was established in the year 1999 in New Panvel, largely, to provide a world class engineering education to students of rural Maharashtra. PCE is affiliated to University of Mumbai, approved by All India Council for Technical Education (AICTE) and accredited by National Board of Accreditation (NBA). It also offers 5 postgraduate and has received a research center status from the University of Mumbai for the department of Mechanical Engineering, Computer Engineering and Information technology.

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  Dept. of ASMH

Programme Coordinators

- **Dr. Richa Agrawal**
  Associate Professor,
  Dept. of Automobile Engineering
- **Mrs. Vidya Kadam**
  Spoken Tutorial Training Manager
  IIT Bombay
- **Prof. Shivapradeep Muthupandi**
  Assistant Professor,
  Dept. of Mechanical Engineering

PcE
PILLAI COLLEGE OF ENGINEERING

A+ NAAC

One Week

Faculty Development Program on

"R Programming"

29th April to 3rd May, 2020

In association with

spoken-tutorial
Ministry of Human Resources and Development
Govt Of India

Organized by

**Department of Automobile Engineering
and
Department Mechanical Engineering**

Pillai College of Engineering,
New Panvel, Navi Mumbai, Maharashtra,410206
Web site :www.pce.ac.in

About Spoken tutorial Project
• Self explanatory - uses simple language
• Audio-video - uses multisensory
  Approach
• Small duration - has beer retention
• Learner-centered - learn at your own pace
• Learning by doing - learn and practice
• Simultaneous empowerment - learn a new
  FOSS

Target Audience
• Any Teacher/Trainer/Student
• System Administrators
• Site Administrators

Features
R is an integrated suite of software facilities for data manipulation, calculation and graphical display. It includes
  • a well developed, simple yet effective programming language which includes conditionals, loops, user defined recursive functions and input and output facilities
  • an effective data handling and storage facility
  • a suite of operators for calculations on arrays, matrices in particular
  • a large, coherent, integrated collection of intermediate tools for data analysis
  • graphical facilities for data analysis and display either onscreen or on hardcopy
R has its own documentation format, which is used to supply comprehensive documentation, both online in various formats and in hardcopy.

Who can use R language
 • Schools, Colleges and Universities
 • Statisticians and data miners for developing statistical software and data analysis, polls, data mining surveys
 • Data Scientist, Market Analyst and Social Scientist

Program Content

The Program will consist of the following modules:

1. Installing R and Rstudio
2. Introduction to basics of R
3. Introduction to data frames in R
4. Introduction to Rstudio
5. Introduction to R script
6. Working Directories in Rstudio
7. Indexing and Slicing Data Frames
8. Creating Matrices using Data Frames
9. on Matrices and Data Frames
10. Merging and Importing Data
11. Data Types and Factors
12. Lists and its Operations
13. Plotting Histograms and Pie Chart
14. Plotting Bar Charts and Scatter Plot
15. Introduction to ggplot2
16. Aesthetic Mapping in ggplot2
17. Data Manipulation using dplyr Package
18. More functions in the dplyr Package
19. Pipe Operator
20. Conditional Statements
21. Functions in R

Department of Automobile and
Mechanical Engineering

Link to Online Registration form for FDP on

"R Programming"

29th April to 3rd May, 2020

https://forms.gle/gLMGoBQuKHasNsT1A

Last Date of Registration:

27th April 2020

Mode of conduction:

Online

Exam Date:

Will be announced later

For Queries Contact:

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