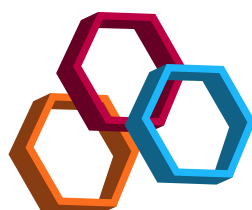


# THADOMAL SHAHANI ENGINEERING COLLEGE

AICTE-ISTE APPROVED ONE - WEEK STTP  
On



## PROGRAMMING WITH PYTHON AND R



(January 2 – January 8, 2018)  
Organized by  
Department of Information Technology

Convener : Dr. Madhuri Rao  
Coordinators : Chetan Agarwal  
Sanobar Shaikh

### Program Objectives.

The course is designed to provide an introduction to programming, data analytics and data visualisation using the Python and R programming language. Python is a widely used high-level programming language for general-purpose programming. It is a versatile and multi-paradigm programming language that can be used for everything from web development to scientific application development . This program also introduces R , a language and environment for Statistical Computing and Visualization. R programming, an open source tool for data analytics that will be introduced with respect to data analytic and machine learning algorithms.

The program is targeted at Individuals, students, and professionals from government, industry, and academia working / interested in learning python and R programming in sufficient depth and breadth.

To,

The Convener,  
Department of Information Technology,  
Thadomal Shahani Engineering College ,  
Adv. Nari Gurshahani Marg, TPS III,  
Bandra (West), Mumbai - 400050.

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## Python Programming Contents:

1. Installation of Python and R programming tools for writing and debugging programs.
2. Using variables, operators, loops and decisions.
3. Functions, String operations, dictionaries, Arrays and sets
4. Object-oriented programming with python classes
5. File Handling, Filters, Map and Range functions
6. Graphical user interface handling and database handling.
7. Network and Web programming using Python.
8. Client-server application and UDP Socket programming

## R Programming Contents:

1. Introduction to R Studio and Ecosystem
2. R Datasets and Data Frames
3. Matrices and Vectors, getting data into the R environment
4. Generating different plots, pie-charts and graphs
5. Analysis of Variance (ANOVA), K-means Clustering and Association Rule Mining
6. Regression in R and Analyzing Relationship with Regression
7. Database connectivity with R
8. Deploy R programming for Hadoop applications

**Student: Rs 1500/- Academic staff: Rs. 3000/- Industry Professional and Others: Rs. 5000/-**

Interested delegates may register with the program by sending the attached registration form duly filled to the convenor along with the applicable registration fees. Payments can be made either by a Demand Draft/Cheque payable at Mumbai in favor of **“Thadomal Shahani Engineering College”**.

Note:

Registration will be on first come first serve basis. Photocopy of registration forms can be used, if required. The course fee is inclusive of course material, refreshments and lunch. Participation certificate will be issued to all participants completing the course.

For Online Registration and other details, please visit: <http://www.tsec.edu/dit/sttp-Rpython>.

**Thadomal Shahani Engineering College**  
Adv. Nari Gurshahani Marg, TPS III, Bandra (W), Mumbai-400050.

### REGISTRATION FORM

Full Name : \_\_\_\_\_

Institution: \_\_\_\_\_ Designation: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Department \_\_\_\_\_ Email: \_\_\_\_\_

Phone: \_\_\_\_\_ ISTE Member: YES / NO ISTE Membership No.: \_\_\_\_\_

DD/Cheque No.: \_\_\_\_\_ Date : \_\_\_\_\_ Bank: \_\_\_\_\_

Amount: \_\_\_\_\_

\_\_\_\_\_  
Signature of participant

\_\_\_\_\_  
Signature with seal of Institute

Date:

Place: