



**INDIAN STATISTICAL INSTITUTE**  
**SQC & OR Unit**  
**HYDERABAD**

announces

**Foundation Course**

**on**

**Data Analytics using R**

**14<sup>th</sup> to 19<sup>th</sup> May 2018**

**Venue**

**SQC & OR UNIT**  
**INDIAN STATISTICAL INSTITUTE**

Road No.8, Habsiguda

Hyderabad – 500 007

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040 2717 1906  
040 2717 9402

FAX : 040 2717 3602

**e-mail : [daisihyd@gmail.com](mailto:daisihyd@gmail.com)**

**Website : [www.isihyd.ac.in](http://www.isihyd.ac.in)**

## Program Objective

This program is designed to equip professionals with the capabilities in extracting implicit, previously unknown and potentially useful knowledge from large dataset

## Program Benefits

Participants will acquire knowledge required for

- Data exploration and visualization
- Preprocessing and transformations
- Supervised (predictive modeling) and unsupervised learning techniques
- Interpretation and validation of results
- Hands on experience on the usage of open source packages like R and R Studio

## Participants' profile

- Any science, commerce or engineering graduate can participate in the program.
- The knowledge of a programming language is desirable but not mandatory.

## Course Content

- Introduction to analytics
- Data exploration and visualization techniques
- Inferential Statistics (Test of Hypothesis, ANOVA, etc)
- Predictive modeling techniques
  - i) Linear and polynomial regression
  - ii) Dummy variable regression
  - iii) Logistic regression
  - iv) Classification and regression tree
  - v) Regression Splines
  - vi) Artificial Neural Networks
  - vii) Naïve Bayes classifier, K nearest neighbor method, Support Vector Machines, etc.
  - viii) Leave one out and k fold cross-validation methods
- Unsupervised learning techniques
  - i) Factor analysis
  - ii) Cluster analysis
  - iii) Association rule mining

## Certification criteria

Certificate will be issued to the candidates securing Qualifying Marks in the TEST conducted on the last day of the course.

## Venue & Timings

Lecture sessions and Practical sessions shall be held during 14<sup>th</sup> to 19<sup>th</sup> May 2018 at the Seminar Hall, at Indian Statistical Institute during 09.00 a.m. to 05.30 p.m.

## Faculty

Senior Specialists from Hyderabad and other branches of Indian Statistical Institute

## Participation Fee

Rs. 22,000 + GST@18% (i.e., Rs.25,960/- per participant inclusive of course kit, lunch & refreshments).

### *Payment Options:*

- i) *Demand Draft drawn in favour of INDIAN STATISTICAL INSTITUTE payable at Hyderabad.*
- ii) *Online Transfer: Syndicate Bank, J S N Colony Branch, Habsiguda, Hyderabad.  
Name of Accountholder : Indian Statistical Institute, Current A/c No : 30451010000079,  
IFSC Code : SYNBO003045*

*Participants making payment through 'Online transfer' shall first verify the availability of seats, and make payment only after confirmation from us.*

## Last date

Last date for submission of Registration form : 04 May 2018 (Subject to availability of seats). Registration is on first-come-first-served basis.

## Program Director

Prof. S M Subhani  
Mobile : 98493 23071

## Program Facilitator

Mr. K Venkata Ramana  
Mobile : 98492 95892

### INDIAN STATISTICAL INSTITUTE

The INDIAN STATISTICAL INSTITUTE founded by Prof. P C Mahalanobis, FRS, is an Institution of National Importance, declared by Act of Parliament and funded by Government of India. It is an Institute of academic excellence offering educational courses at Graduate, Post graduate and Research levels. The scientific activities of the Institute are carried out through different Divisions.

#### Role of SQC & OR Division

- The Pioneer and Leader in blending Statistical Theory with Practice.
- To disseminate the basic concepts and techniques of Quality Improvement through Training programs, Workshops and In-house programs.
- To render consultancy services to industries in SQC, ISO 9001, ISO 14001, OHSAS 18001, TS 16949, Six Sigma and related areas.
- To provide solutions to the problems pertaining to Business Decision Processes with the aid of Statistical and Operations Research methods.

Foundation course on

## Data Analytics using R

(14<sup>th</sup> to 19<sup>th</sup> May 2018)

### REGISTRATION FORM

Organization :

Contact Person :

Mailing Address :

Phone : (M)

(O)

(R)

e-mail :

FAX :

Participant(s) details :

S No.	Name	Designation & Department	e-mail	Mobile
1				
2				
3				

*Note : i) Course Fee per participant is Rs.25,960/- including GST@18%.*

*ii) Typed copy of this form may be used in case of more participants.*

*iii) Participants making payment through 'Online transfer' shall first verify the availability of seats, and make payment only after confirmation from us.*

Amount :

Online transaction reference No. :

Date:

DD No. :

Bank & Branch :

Signature :

Date:

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Please e-mail, post or FAX the filled in form addressed to the Program Director to our office address given above.