

## NOTE:

Resource Person from ICT Mumbai Dr. Amiya Ranjan Bhowmick and Dhempe College department faculty Miss. Sujata Desai will conduct the sessions. The session will include demonstrations and hands-on training. Attendance in all 4 days is compulsory. Course material will be provided to the participants at Registration. Participants will have to study the Statistical techniques provided in the course material. Any participants who wishes to learn Statistical Technique not mentioned in the syllabus but is used in his/her subject should convey to us at the time of registration so that sessions on the topics demanded can be conducted during the workshop.

### Course Co-ordinator:

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### Convenor:

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### Advisor:

Mr. Rajesh Bhatikar

Administrator

## Objectives:

1. The workshop aims at enhancing the skills of college teachers in Goa so as to benefit the students of colleges
2. After this workshop the teacher should be able to conduct value added courses for their students in Statistical Techniques

## How to Register & Registration Fee:

Email at [mathdhempe@gmail.com](mailto:mathdhempe@gmail.com) to obtain a registration form and Study material.

Registration Fee for the participants is

Rs. 1000/-

**Seats available:** Only 20 seats.

## Last date to Register:

10th March 2019

## Requirements:

It is desirable that participants should bring his/her own Laptop.

Tea, Snacks and lunch will be provided to the participants.

## Sessions on each day:

10 am - 12 noon: 1st session  
12 noon-1 pm: Difficulties to solve  
1 pm - 2 pm: Lunch break  
2 pm - 4 pm: 2nd session  
(Reporting time 9:30 am (all 4 days))



## WORKSHOP ON DATA ANALYSIS AND STATISTICAL TECHNIQUES USING "R"

Organized by Department of  
Mathematics  
DCT's Dhempe College of Arts  
& Science

On 15th, 16th, 18th and 19th  
March 2019

Sponsored by:  
DEPARTMENT OF SCIENCE  
AND TECHNOLOGY,  
GOVERNMENT OF GOA

## Syllabus:

- ▶ Introduction to R and R-studio.
- ▶ Statistical Distribution and visualization in R (both theory and programming)
- ▶ Handling Data in R and data structures in R.
  - Measures of Central Tendency : Mean, Median, Mode
  - Measures of Dispersion : Range, Quartile Deviation, Mean deviation and Standard Deviation.
- ▶ Wiring functions in R.
- ▶ Regression Techniques in R (Numerical Response) along with diagnostic tests.
  - Correlation and Regression Analysis : Karl Pearson's coefficient of Correlation, Rank Correlation method, Regression Analysis.
- ▶ Non- Parametric tests : Chi-Square tests, Mann-Whitney test, Kruskal's Walli's test.
- ▶ Testing of Hypothesis : Testing of Hypothesis of single mean and difference of mean using t-test and Paired t-test.
- ▶ Testing of Hypothesis for more than two means using ANOVA.
- ▶ Re-sampling Methods in R (bootstrap) and its application in real life problems.
- ▶ All concepts will be supported by the simulated data and real data as well.