



**Short Term Training Programme on  
DATA ANALYSIS IN RESEARCH  
USING STATISTICAL SOFTWARE**

**December 15 – 19, 2014**



**Sponsored by TEQIP Phase II**

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Organised by  
**Department of Economics**  
**Government Engineering College**  
**Thrissur 680 009**

Course Coordinator:  
**Rajesh P.**

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Govt. Engineering College, Thrissur – 680 009.

## Objective of the STTP

Data analysis plays a vital role in the research process and decision making in any discipline. The researchers generally collect large amount of data for their research but the proper analysis of the huge data set is a challenging task to many of the researchers. With the availability of various statistical techniques and powerful statistical software, the data analysis has become accessible to the researchers and professionals. However, the scanty knowledge in the statistical techniques and lack of proper training in the data analysis using statistical software often results in improper use of the data and the invalid research outcomes.

This short-term training programme intends to provide a hands-on training to the participants in data analysis using statistical software. The programme expects to develop the capability of the participants in the proper choice of the statistical techniques as well as the computation and interpretation of the results, for the analysis of the large data sets. This training will be more useful for the faculty members, who are engaged in research, for developing their data analysis skills.

## Course Content

The training programme will cover the following topics:

- Review of basic statistics for data analysis in research
- Descriptive statistics - construction of tables and charts and computation of numerical descriptive measures.
- An overview of fundamentals of estimation and hypothesis testing in research
- Applications of hypothesis testing - computation and interpretation of t-test (one sample, independent samples, and paired sample), ANOVA, ANCOVA, chi-square test, and non-parametric tests.
- Mechanics of regression analysis
- Multiple regression – modelling, method of estimation, and model adequacy testing.
- Factor analysis, Multidimensional scaling & Cluster analysis
- Logistic regression and Discriminant analysis
- Time series modelling- stationarity testing, ARIMA modelling & time series forecasting.
- Cointegration and Granger causality.
- Panel data modelling.

## **Pedagogy**

The pedagogy involves interactive lectures, demonstrations, and hands-on practical training using statistical software – IBM SPSS Statistics (Trial Version), Gretel and MS-Excel.

## **Resource Persons:**

Prof. (Dr.) N. Viyajamohanan Pillai of CDS-Thiruvananthapuram is the chief resource person in the training programme. He is a leading expert in India in the theoretical and applied statistics, particularly in regression analysis, time series analysis and panel data modelling. Experts from other reputed academic institutes also will handle the training sessions.

## **Eligibility**

The STTP is primarily meant for the faculty members working in the AICTE approved engineering colleges. Since it is an interdisciplinary programme, the faculty members working in all disciplines are eligible to participate.

No prior knowledge on advanced statistical methods is required for participating in the programme.

## **Registration**

Candidates should complete the registration form, and send it by mail/by post to the coordinator as early as possible. The filled-in registration form should reach the course coordinator latest by December 09, 2014. A scanned copy of the registration form may be e-mailed to the coordinator as an advance copy.

A maximum of 30 participants will be selected for the programme. Registrations will be done on 'first come first served' basis. The selection of the participants will be communicated by e-mail/SMS immediately after the receipt of the registration form. All short-listed candidates are required to communicate the confirmation of their participation to the course coordinator through e-mail.

## **Registration Fee**

Faculty members from TEQIP institutions : ₹ 5,000

Faculty members from non-TEQIP institutions : ₹ 1,000

The registration fee can be remitted at the time of registration.

Registration fee will include lunch, tea, course materials, and certificate. Traveling, accommodation and other expenses will have to be borne by the participants.

### **Important Dates:**

Last date for receiving the filled-in registration form: **9<sup>th</sup> December, 2014.**

Intimation of selection by e-mail: **10<sup>th</sup> December, 2014.**

Last date for confirmation of participation: **11<sup>th</sup> December, 2014.**

Program dates: **15<sup>th</sup> -19<sup>th</sup> December, 2014.**

### **About GEC, Thrissur**

The Government Engineering College, Thrissur, established in 1959, is one of the premier institutes of higher technological education in Kerala. Affiliated to University of Calicut, the college offers undergraduate courses in eight branches of engineering subjects and postgraduate and doctoral programme in various disciplines. The college campus is spread over an area of 75 acres and is located at Ramavarmapuram, which is about 5 km from the heart of Thrissur Town and about 6 km from Thrissur Railway Station.

### **Address for Communication**

#### **Rajesh P.**

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KERALA.

Phone: 09447344410, E-mail: [rajesh@gectcr.ac.in](mailto:rajesh@gectcr.ac.in)

### **Enquiry**

For any further clarification or information please contact the coordinator.

### **Note:**

Participants are requested to bring their own laptops for the practical sessions in data analysis.

**Government Engineering College, Thrissur**  
**Short Term Training Programme on**  
**Data Analysis in Research Using Statistical Software**  
**December 15 – 19, 2014**  
**REGISTRATION FORM**

(Please use Capital Letters)

1. Name .....
2. Age ..... 3. Gender : Male/Female
4. Designation.....
5. Department.....
6. Organization.....
7. Recognised under AICTE : Yes / No
8. Address for Correspondence.....  
.....  
.....  
.....
9. Mobile No.....
10. Email .....
11. Highest Educational Qualification.....
12. Years of Professional Experience.....

**Declaration by the Applicant**

The above mentioned information is true to the best of my knowledge and belief. I agree to abide by the rules and regulations governing the course.

Place:

Date:

Signature of the Applicant

**Recommendation by the Head of the Institution**

Mr./Ms./Mrs./Dr.....  
is an employee of this institution. He/she will be permitted to attend the training programme, if selected.

Place:

Date:

Signature of the Principal /  
Head of the Institution

Office seal