

SPSS

Hands- on Training on Statistical Data Analysis for Researchers and Students

Theory and practical on Statistics and
SPSS package



2020 January 16-18
TIES Campus, Velloor,
Kottayam

11th
Batch

*Specialised training programme to equip
students, researchers and scientists for using
sophisticated statistical tools for design,
collection, analysis and interpretation of data*

Organised by:
Tropical Institute of Ecological Sciences (TIES)
Velloor P.O., Kottayam 686 501, Kerala, India.



*Approved Research Centre of
Mahatma Gandhi University, Kottayam.*

MAKING FUTURE RESEARCHERS

Hands- on Training on Basics and Advanced Applications of Statistics, and SPSS

Systematic collection, management, and analysis of raw data is vital to research in any discipline including science, social sciences, natural sciences, marketing and business studies, and hence statistical analysis is an integral part of higher education. Nowadays statistics has wide applications in all academic fields and even in day to day life.

In research, from the school/college level projects to doctoral programmes, several statistical tools have been widely used for data analysis and interpretation of data. It helps the researchers to design research methodology, reveal links between variables, and make decisions in solving statistical or real-life problems. Several packages/softwares are available now for various types of statistical applications, but Statistical Package for Social Sciences (SPSS) is the most popular among devised statistical softwares, because it is advanced, more flexible and easy to use.

SPSS has features for descriptive statistics (plots, charts, frequencies, measures of central tendency and dispersion etc.), sophisticated inferential and multi-variate statistical estimations such as Analysis of Variance (ANOVA), factor analysis, cluster analysis, correlation and regression. It makes quantitative analysis quicker and easier.

Considering the growing demand for statistical analysis using SPSS, the four- day workshop is organized to teach basics on statistics, application oriented concepts and techniques on SPSS to researchers, research scholars, undergraduate and post graduate students in conventional courses and professional courses (Nursing, Pharmacy etc.). No prior knowledge in SPSS or statistics is required to register for the programme, as it will be covering basics on getting started with



General Objectives

- To teach theory and application oriented concepts on statistics and data analysis
- To understand the significance of statistical softwares in data management and analysis while doing research
- To develop a better understanding of SPSS, its basics and advanced applications in data analysis, and equip the participants with skills to use SPSS package
- To familiarize the participants with different research approaches using SPSS, for effective conduct of research design, collection and interpretation of valid data
- To enhance analytical skills of the participants

Expected Output

- Acquired knowledge on statistics basics and advanced application among faculty members, research scholars and other participants
- Participants will be equipped in SPSS concepts and techniques, and skilled in SPSS package use
- The participants will be able to perform research design, data collection, analysis and management efficiently using SPSS

For Whom?

- Research scholars in science and non sciences fields
- Researchers/Scientists
- University/ College Teachers
- Students of any discipline at Undergraduate and Postgraduate level including conventional courses, interdisciplinary and multidisciplinary courses, engineering and medical courses including nursing, pharmaceutical sciences.

Yes! You will get training on Sample size estimation

Special modules are included in the course on Sample Size estimation based on Variance, which is essential for all researchers.

Consultancy service!

All participants are offered advice for statistical analysis for individual research project design / data analysis.

Duration and Venue

The programme will be held at Tropical Institute of Ecological Sciences (TIES), Ecological Research Campus, Velloor P.O., Kottayam. The duration of the workshop is three days (16-18 January 2020).

The classes will start at 09:30 am in the morning and end at 04.30 pm in the evening with a 45 minute lunch break from 1.00 pm to 1:45pm and two small 10 minutes breaks at 11.00 am and 3.00 pm.

A detailed format of 3 day workshop is given below:

Modules

Day -1

Measures of Central Tendency, Measures of Dispersion, Mean, Median, Mode, SD, CV, and Standard error.

Correlation and Regression Analysis.

Fundamentals of testing null hypothesis and alternative hypothesis, type -1 and type -2 errors, Neyman and Pearson Method of test procedure, large sample test, Test for mean and proportion.

t-test, test using t-statistics, single mean, t-test, double mean, paired 't' test, t - test for significance single correlation and chi-square test. Practicals of live data using calculator.

Day - 2

Sampling and sample methods; Fundamentals of field experiments. CRD, RBD, 2 factor CRD, 2 factor RBD. Practicals of live data using calculator.

Multiple regression analysis and statistical modelling. Demonstration based on SPSS printout.

Day -3

Complete practical using SPSS.

Forenoon session: Live data analysis

Comparison of different set of data using CV

Correlation Matrix

Multiple linear analysis and forecasting

ANOVA- one way with DMRT

Afternoon session:

RBD

Two factor CRD

Factor analysis

Principal Component Analysis

Logistic Regression

Application oriented class with live examples

It is mandatory to bring an ordinary calculator to the class. Personal laptops are not compulsory, but you can bring laptops to the class if available.

Participants

One batch should be of 35-45 people or a minimum of 20 participants.

Faculty

The faculty of the workshop consists of well experienced statisticians and computer experts hails from renowned institutions.

Certification

A Course certificate will be issued to all participants by the Tropical Institute of Ecological Sciences (TIES) upon the completion of the workshop.

Registration Fee

Rs. 2000.00 for all the participants (employed persons and researchers with grant, scholarships or stipent, non salaried/non-employed students and researchers). The fee covers tuition fee, workshop materials such as pad, pen, printed notes and statistical tables. Also include lunch and light refreshments at tea breaks.

Registration fee may be remitted as DD or through Bank transfer (Account name: Tropical Institute; Bank: Canara Bank, Manarcaud; Account number: 0779101012487; IFC Code: CNRB0000779; MICR Code: 686015801)

Accommodation can be arranged on request.

TIES

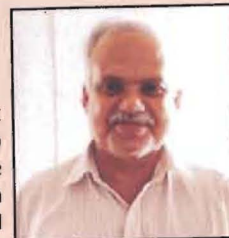
Tropical Institute of Ecological Sciences

TIES is a not-for-profit professional organization and an affiliated research centre of Mahatma Gandhi University. The *Vision* of the organization is "TIES stands for Man and Nature, through education and practice: a synergy of science, tradition and environment". The *Mission* of TIES is "to create an environmentally responsible community through research, environmental education, capacity building and community participation blending traditional and modern scientific knowledge.

TIES is the Centre of Excellence for the Emerging Kerala projects, Govt. of Kerala and bagged the Kerala State Green Institution Award, 2012 and TIES' project Naalumanikkaattu won the State Tourism Award, 2013 for the most innovative project in the tourism sector. TIES conduct extensive research programmes in environmental sciences and several academic programmes to train students and faculty in research methodology and various advanced fields of sciences.

DR. RAMESH B. NAIR

Key Resource Person



Renowned statistical expert and passionate teacher who have 38 years of experience in field-design and data analysis, consultation and teaching. He has been Post graduated in Agricultural statistics from Kerala Agricultural University and joined Rubber Board, Govt. of India, in 1982 and retired as Head of the Department, Statistics and Planning Division & Joint Director of Rubber board in 2019. During this period he has modified all field experiments related to rubber which is quite applicable to all tree crop field experiments. The design of almost all experiments were fundamentally changed which gave a new dimension to statistical design and data analysis and elevated experiments to international standards. He has more than 100 publications to his credit in national and international journals. He is the statistical consultant for several institutions like Spices Board, Medical College Hospitals, and Mahatma Gandhi University. He also served as expert member of CSR committees of major tyre companies in India. He has served as Member Secretary for several International conferences like ANRPC annual conference, IRRDB annual conferences, and India Rubber Meet. Dr. Ramesh is one of the few expert consultants in research field design and data analysis in Kerala for a wide range of subjects like agriculture, nursing, fisheries, social sciences, commerce, environmental science, and other basic or applied sciences.

For more Details and registration please contact office OR
Log on to our website.

Course co-ordinator

**Hands on Training on Data Analysis & SPSS
Package; 16-18 January 2020**

Tropical Institute of Ecological Sciences

Velloor P.O., Kottayam 686 501

Kerala, India

Tel: 09497290339

Email: tropicalschool@gmail.com

URL: www.ties.org.in

