



Online Training Programme ON



Statistical Techniques for Data Analysis in Agriculture (for Technical Personnels)

04 – 13 October, 2021

Course Coordinators:

Dr. Ajit

Dr. Ranjit Kumar Paul

Dr. Soumen Pal

Under the Aegis of:

Human Recourse Management (HRM) Unit
Indian Council of Agricultural Research

Tentative Number of Participants:

50

Submission deadline:

29 September 2021

ICAR-Indian Agricultural Statistics
Research Institute
Pusa, Library Avenue,
New Delhi -12
<https://iasri.icar.gov.in/>

Introduction

Statistics play a very important role in agricultural research. With the advances in computational capabilities, this area has adapted itself to the current needs and methodological challenges. This training programme has been planned to accommodate the needs of both theory and applications for analyzing the agricultural data. The agricultural professionals and policy makers have a role to play in selecting right technique and to understand the mechanisms of underlying statistical theories. Moreover, the software like R, Python *etc.* are playing major roles in analysing such data emerged from agricultural experiments. There is an ever-increasing demand to be trained and sensitized with recent developments in statistical techniques.

Objective

- To train participants in analyzing agricultural data using appropriate statistical techniques.
- Acquainting the participants about statistical software packages.
- To enhance and upgrade the skill associated with research activities.

About ICAR-IASRI

ICAR-IASRI is a premier Institute of relevance in Statistical Sciences (Statistics, Computer Applications and Bioinformatics) and their judicious fusion in agricultural sciences for enriching quality of agricultural research and informed policy decision making. Ever since its inception in 1930, as a small Statistical Section of the then Imperial Council of Agricultural Research, the Institute has grown in stature and made its presence felt both nationally and internationally.

State of Art facilities/Web-Resources/Tools/Systems/Databases/Packages/Information Systems at IASRI

- ICAR-Data-Centre -since 2014
- ASHOKA (Advance Super Computing Hub for Omics Knowledge in Agriculture) since 2014
- Artificial-Intelligence and Cloud Computing Servers -since 2020)
- AGRI-DIKSHA-channel-since 2021
- Statistical Computing Hub/SSCNARS
- Design Resources Server
- Sample Survey Resources Server
- Agricultural Biocomputing Portal
- Sequence Submission Portal
- KRISHI-Portal
- KVK-Portal
- Statistical Packages viz SPAR, SPAB, SPBD, SPFE, SSDA, SPAD
- Integrated Sample Survey Solutions for Major Livestock Products

Eligibility

- **Technical personnel** in ICAR or SAUs/CAUs/ICAR funded KVKs.
- Working knowledge of computers.

Duration

- **04–13 October 2021 (10 days)**

Mode of training

- **On-line/Virtual (ZOOM-platform)**

Course content

The course has been structured in a series of modules with classroom lectures and on-line practical on computers.

Module-I: Preliminary Statistics

- ✓ Exploratory Data Analysis
- ✓ Correlation & Regression
- ✓ Testing of Hypothesis
- ✓ Regression Diagnostics
- ✓ Non-Parametric Tests

Module-II: Statistical Models

- ✓ Logistic Regression
- ✓ Linear Time-Series Models
- ✓ Nonlinear Time-Series Models

Module-III: Statistical Tool/analysis support

- ✓ Excel for statistical data analysis
- ✓ R
- ✓ Python
- ✓ Design Resources Server/ SSCNARS

Module-IV: Sample Survey and Analysis of Experimental Designs

- ✓ Overview of Sampling Techniques
- ✓ Analysis of Basic Designs of Experiments
- ✓ Split and Strip Plot Designs
- ✓ Factorial Experiments

Module-V: Multivariate and Machine Learning Techniques

- ✓ Machine Learning Techniques: ANN, SVM, Random Forest etc.
- ✓ Cluster Analysis
- ✓ PCA and Factor Analysis

Application Form

Online Training Programme
on

“Statistical Techniques for Data Analysis in Agriculture”
04–13 October 2021

1. Full Name:
2. Designation:
3. Present Employer and address:
4. Correspondence Address:
5. Permanent Address along with Contact Details (Emails, Telephone, Mobile, etc.):
6. Date of Birth:
7. Sex (M/F):
8. Teaching/Research/Professional Experience (for last five years):
9. Marital Status:
10. Academic Record (After Graduation or equivalent level)
11. Discipline:
12. Level of knowledge in Statistics and Computers:

(Signature of the Applicant
with Date)

14. Recommendations of the forwarding Institute:

(Signature of Forwarding Authority with Seal
and Date)

The scanned-soft-copy of the dully filled form along with the seal and signature of the Forwarding Authority may be forwarded to ajit@icar.gov.in

General Information

Interested personnel fulfilling the eligibility conditions may apply through proper channel for attending the training programme.

All correspondence may be addressed to:

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