

Phone Nos.: 01662-255414

(Fax also) 01662-284316

E.mail : [aarem@hau.ac.in](mailto:aarem@hau.ac.in)



**Academy of Agricultural Research and Education Management  
DIRECTORATE OF HUMAN RESOURCE MANAGEMENT,  
CCS HARYANA AGRICULTURAL UNIVERSITY,  
HISAR-125 004 (HARYANA), INDIA**

**Dr. M.S.Sidhpuria  
Director**

No.HRM/AAREM/951-69  
Dated: 12.6.2020

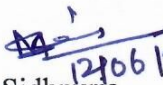
Dear Sir/Madam,

The Academy of Agricultural Research & Education Management, Directorate of Human Resource Management, CCSHAU, Hisar in collaboration with Department of Mathematics and Statistics, COBS&H is organizing a Refresher Course on Statistical Tools and Techniques for analysis of Agricultural Data from July 8-28, 2020 through online mode. This course is open to scientists/teachers/extension personnel working in SAUs/ICAR institutes, State Universities, colleges and related organizations.

We invite nominations of scientists/teachers/extension workers working in your University/ Department for participation in this course. The nominations should reach the undersigned latest by 26/06/2020 only through E-mail: [manjunagpalmehta@gmail.com](mailto:manjunagpalmehta@gmail.com). Hard copy of the form will not be accepted.

The course details and application proforma are enclosed.

Yours sincerely,

  
M.S.Sidhpuria 12/06/2020

Encl: as above.

CC:

1. The Vice Chancellors, State Agricultural Universities.
2. The Vice Chancellors, State Universities.
3. Directors of Research and DEEs, State Agricultural Universities.
4. Directors, ICAR Institutes.
5. All Deans/Directors/Heads of Departments, CCSHAU, Hisar
6. Principal, College of Agriculture, Kaul.
7. All RRS/KVKs, CCSHAU, Hisar.
8. S.V.C. for information of the Vice Chancellor, CCSHAU, Hisar.
9. PRO, CCS HAU, Hisar for press coverage.
10. Incharge,comptner section for uploading it on university website

# Statistical Tools and Techniques for analysis of Agricultural Data

July 8-28,2020

## FORMAT FOR NOMINATION

1. Name :
2. Designation :
3. Department/Office :
4. Date of joining
5. Date of birth :
6. Address for communication
7. Telephone: Office ..... Mobile..... E-mail.....

8. Qualifications:

---

Degree	Year	University	Subject
--------	------	------------	---------

---

---

9. Do you require financial assistance from ICAR Yes/No

Development Assistance Scheme? If no, mention the source of funding (Name and No. of Scheme).....

Signature of the Participant

## CERTIFICATE OF THE SPONSORING AUTHORITY

Ms./Mr./Dr..... is hereby nominated for participation in the Refresher Course on Statistical Tools and Techniques for analysis of Agricultural Data from July 8-28, 2020 being organized by the Academy of Agricultural Research and Education Management, Directorate of Human Resource Management, CCSHAU, Hisar. He/She will be relieved by the Department/office and treated on official duty during the period of the course.

Signature of the Competent Authority

# DIRECTORATE OF HUMAN RESOURCE MANAGEMENT

## CCS HARYANA AGRICULTURAL UNIVERSITY HISAR-125 004 (HARYANA), INDIA

---

Online Refresher Course  
On  
**Statistical Tools and Techniques for analysis of Agricultural Data  
(July 8-28, 2020)**

<b>Target Group</b>	Extension Specialists/teachers/scientists working in SAUs, ICAR Institutes, State Universities, Colleges and other organizations.
<b>Number of seats</b>	30 (Thirty)
<b>Last date to Register</b>	26 <sup>th</sup> June, 2020

NOTE:

- Registration Fee of Rs.2000/- per participant to be deposited through online after selection in the course
- Participation Certificate will be issued in digital form
- Interested applicants must send their details in the profoma

**FOR MORE DETAILS CONTACT**

**Manju Mehta**

**Joint Director HRM**

**Email: manjunagpalmehta@gmail.com**

**Mobile: 92555-26303, 81686-84081**

## **CCS HAU HISAR AT A GLANCE**

Chaudhary Charan Singh Haryana Agricultural University popularly known as HAU, is one of Asia's biggest agricultural universities, located at Hisar in the Indian state of Haryana. It is named after India's seventh Prime Minister, Chaudhary Charan Singh. It is a leader in agricultural research in India and contributed significantly to Green Revolution and White Revolution in India in the 1960s and 70s. It has a very large campus and has several research centres throughout the state. It won the Indian Council of Agricultural Research's Award for the Best Institute in 1997. HAU was initially a campus of Punjab Agricultural University, Ludhiana. After the formation of Haryana in 1966, it became an autonomous institution on February 2, 1970 through a Presidential Ordinance, later ratified as Haryana and Punjab Agricultural Universities Act, 1970, passed by the Lok Sabha on March 29, 1970. A. L. Fletcher, the first Vice-Chancellor of the university, was instrumental in its initial growth.

## **ABOUT THE REFRESHER COURSE ON STATISTICAL TOOLS AND TECHNIQUES FOR ANALYSIS OF AGRICULTURAL DATA**

Statistics is an emerging field of research having enormous applications in agriculture and allied sectors. To understand the increasing complexity among decision variables, many statistical techniques and tools have been developed in recent years. Each technique has its special assumptions and particular area of application. The agricultural professionals and policy makers have a role to play in selecting right technique and to understand the mechanisms of underlying statistical theories. With advancement in computational tools and techniques, this area has become most important for the current needs. Therefore, this training programme has been designed to address the needs of both theory and applications. In order to proceed towards need based research, it is important that agricultural professionals engaged in various disciplines are exposed to the advance developments taking place in this area. The proposed training programme would help researchers in formulating appropriate strategies to face the upcoming challenges.

## **OBJECTIVES OF THE REFRESHER COURSE**

- To educate the participants about various existing basic and advanced statistical techniques for agriculture data analysis.
- To familiarize the participants with the recent advances in designing of experiments and statistical analysis of experimental data for making valid inferences from agricultural research.
- To acquaint the participants with the use of statistical software packages for data analysis.

# STATISTICAL TOOLS AND TECHNIQUES FOR ANALYSIS OF AGRICULTURAL DATA

## Module 1: Introductory and Basic Statistics

- Applications of Statistics in Agriculture and Allied Sciences
- Descriptive Statistics
- Data Transformation Techniques
- Testing of Normality and Validity of the Data
- Handling of Missing Data
- Create and Analyze Surveys

## Module 2: Basic Statistical Techniques:

- Statistical Methods and Inference
- Testing of Hypothesis
- Correlation and Regression Analysis
- Non-Parametric Tests
- Linear and Non Linear Models
- Time Series Modelling and Analysis
- Survey and Sampling Techniques
- Structural Equation Modelling

## Module 3: Advance Statistical Modelling:

- Multivariate Analysis
- Principal Component Analysis
- Discriminate Analysis
- Factor Analysis and Probit Analysis
- Overview of Basics of Econometrics
- Econometrics Models and its applications
- Survival Analysis
- Bayesian Analysis
- Simulation Techniques
- Logistic Regression

## Module 4: Statistical Packages:

- MS-Excel
- SPSS
- SAS
- R and R Studio
- Open Source Software –OPSTAT
- Indian NARS Statistical Computing Portal

## Module 5: Design of Experiments:

- Planning of Field Experiments
- Analysis of Variance
- One/Single Factor Experiments
- Two Factor Experiments
- Three Factor Experiments
- Multiple Comparison Test

## **Module 6: Statistical Genetics:**

Overview of Quantitative Genetics  
Path Analysis  
Diallel Analysis  
Line x Tester Analysis  
Augmented Design  
Stability Analysis

## **Module 7: Optimization Techniques:**

Optimization Techniques and its applications  
PERT/CPM and applications  
Overview of MATLAB  
LATEX  
Mathematical Models and Applications in Agriculture

Online nominations in the prescribed format may be sent through respective controlling officers to:

**The Director,  
Human Resource Management,  
CCSHAU, Hisar- 125004 (Haryana).  
Tel. (O) 01662-284316 , 255414**

### **CHIEF PATRON**

**PROF. K.P. SINGH**

**Hon'ble Vice-Chancellor, CCSHAU, Hisar**

### **CO- PATRON**

**Dr. M.S. SIDHPURIA**

**Director Human Resource Management,**

**CCSHAU, Hisar**

**Dr. Manju Singh Tonk  
Course Director  
Professor and Head  
Department of Mathematics  
and Statistics CCS Haryana  
Agricultural University,  
Hisar 125004 (Haryana)  
Off: 01662-255201  
Mob. 9996210277**

**Dr. Vinay Kumar  
Course Coordinator  
Assistant Scientist  
Department of Mathematics  
and Statistics CCS Haryana  
Agricultural University,  
Hisar 125004  
(Haryana)  
Mob. 9896221071**

**Manju Mehta  
Coordinator  
Joint director  
Directorate of Human  
Resource Management  
CCS HAU, Hisar 125004  
(Haryana) India  
Off: 01662-255414  
Mob. 9255526303**

E-mail: [manjunagpalmehta@gmail.com](mailto:manjunagpalmehta@gmail.com)