



## NATIONAL WORKSHOP ON ECONOMETRIC METHODS AND APPLICATIONS

**NOVEMBER 13<sup>TH</sup> - 15<sup>TH</sup>, 2019**

**ORGANISED BY  
DEPARTMENT OF ECONOMICS,  
CRSU, JIND**



### ABOUT CHAUDHARY RANBIR SINGH UNIVERSITY(CRSU),JIND

Established by the Haryana State Legislature Act 28 of 2014 on July 24, 2014, CRSU has a sprawling campus of 75 acres situated 2 kilometres from Gohana Bypass, Jind, Haryana. The university was established with the vision of imparting quality education by creating most conducive ambience for the production and dissemination of knowledge guided by innovative thinking, scientific enquiry, sublime human values, sustainable ecology, and democratic ethos. The aim of the University is the cultivation of citizens with a rich awareness of our heritage to lead and serve in every sphere of human activity.

### ABOUT DEPARTMENT OF ECONOMICS

The Department of Economics was established in 2014. Since then, the Department has been making best efforts to equip the students with the economic principles which can be applied in any discipline of knowledge. The goal of the Department is not only to foster a sense of enquiry in the students, but to make them more analytical and better decision maker in their life.

### RATIONALE BEHIND THE WORKSHOP

In this era of uncertainty, complexity and ambiguity, data based decisions have acquired great significance. Econometric methods are instrumental whenever there is a need of finding the stochastic relationship in mathematical format. Econometric Methods can be used in wide-ranging areas like Business, Commerce, Engineering, Physical Sciences, Biological Sciences, Medical Sciences, etc. So there is a dire need to equip students, researchers, and faculty members with Econometrics Methods along with its applications.

The present workshop has been designed in a systemic manner. It starts with the basics of regression, and later proceeds towards some core concepts, using cross section & time series data, which are of utmost importance while doing research. Therefore, the present workshop does not require any prerequisite, except the attention of the participant.

### ORGANIZING TEAM

#### CHIEF PATRON

Prof. R.B. Solanki, Vice-Chancellor, Chaudhary Ranbir Singh University, Jind.

#### PATRON

Dr. Rajbir Singh Mor, Registrar, Chaudhary Ranbir Singh University, Jind.

**CHIEF ADVISOR:** Prof. S. K. Sinha, Dean Academic Affairs, CRSU, Jind.

**CONVENOR:** Dr. Sonu, Chairperson, Department of Economics, CRSU, Jind.

**CO-CONVENOR:** Dr. Jasvir Singh Sura, Chairperson, Department of History, CRSU, Jind

**ORGANIZING SECRETARY:** Dr. Anju Rani, Assistant professor, Department of Economics, CRSU, Jind.

**JOINT SECRETARIES:** Dr. Manju, Assistant Professor, Department of Economics, CRSU, Jind & Mr. Vaibhav Chaudhary, Assistant Professor, Department of Economics, CRSU, Jind

**TREASURER:** Dr. Mukesh Sharma, Assistant Professor, Department of Economics, CRSU, Jind.

#### TECHNICAL ADVISORY COMMITTEE

- ❖ Prof. R.S. Pandey, Vice-Chancellor, BMU, Rohtak.
- ❖ Prof. Kanwaljit Kaur Gill, Department of Economics, Punjabi University, Patiala
- ❖ Prof. Satish Verma, RBI Chair, CRRID, Chandigarh.
- ❖ Prof. Arup Mitra, Institute of Economic Growth, New Delhi.
- ❖ Prof. Surender Mor, Department of Economics, BPSMV, Khanpur Kalan.
- ❖ Prof. Ashok Mittal, Department of Economics, Aligarh Muslim University, Aligarh.

#### LOCAL ORGANISING COMMITTEE

- ❖ Dr. Shiv Kumar, Assistant Professor, Department of Psychology, CRSU, Jind.
- ❖ Dr. Alka Seth, Assistant Professor, Department of Psychology, CRSU, Jind.
- ❖ Dr. Nisha Deopa, Assistant Professor, Department of Physics, CRSU, Jind
- ❖ Dr. Rachna Shrivastava, Assistant Professor, Department of Management, CRSU, Jind
- ❖ Dr. Sandeep Kumar, Assistant Professor, Department of Commerce, CRSU, Jind
- ❖ Dr. Pardeep, Assistant Professor, Department of Psychology, CRSU, Jind



यथा चतुर्भिः कनकं परीक्ष्यते निघर्षणच्छेदनतापताडनैः ।  
तथा चतुर्भिः पुरुष परीक्ष्यते त्यागेन शिलेन गुणेन कर्मणा ॥

Translation-

The way gold's purity is tested by rubbing, cutting, heating and pounding, similarly, a person's qualities are tested by gentleness, manners, habits and deeds.

## SCHEDULE OF THE WORKSHOP

### DAY-1:

- ❖ 9:30-11:00 INAUGURATION
- ❖ 11:00-11:30 HIGH TEA
- ❖ 11:30-1:30 TECHNICAL SESSION 1
- ❖ 1:30-2:15 LUNCH
- ❖ 2:15-4:15 TECHNICAL SESSION 2

### DAY-2:

- ❖ 9:15-11:15 TECHNICAL SESSION 3
- ❖ 11:15-11:30 TEA
- ❖ 11:30-1:30 TECHNICAL SESSION 4
- ❖ 1:30-2:15 LUNCH
- ❖ 2:15-4:15 TECHNICAL SESSION 5

### DAY-3:

- ❖ 9:15-11:15 TECHNICAL SESSION 6
- ❖ 11:15-11:30 TEA
- ❖ 11:30-1:30 TECHNICAL SESSION 7
- ❖ 1:30-2:15 LUNCH
- ❖ 2:15-4:00 VALEDICTORY

## SESSION WISE TOPICS

### DAY 1:

SESSION 1: LINEAR REGRESSION MODEL AND ITS ESTIMATION THROUGH OLS.

SESSION 2: ESTIMATION OF NON-LINEAR REGRESSION MODELS.

### DAY 2:

SESSION 1: ANALYSIS OF VARIANCE AND ITS APPLICATIONS.

SESSION 2: PROBLEMS IN REGRESSION ANALYSIS: SERIAL CORRELATION, HETEROSCEDASTICITY AND MULTICOLLINEARITY.

SESSION 3: SPECIFICATION BIAS, SIMULTANEOUS EQUATION BIAS AND INCONSISTENCY OF OLS ESTIMATORS.

### DAY 3:

SESSION 1: DUMMY DEPENDENT VARIABLE REGRESSION MODELS (LOGIT & PROBIT).

SESSION 2: INTRODUCTION TO TIME SERIES: STATIONARITY, UNIT ROOTS, CO-INTEGRATION, DICKEY-FULLER TEST, RANDOM WALK MODEL.

$$Y_i = \beta_0 + \beta_1 X_i + \epsilon_i$$

Diagram illustrating the components of the linear regression model:

- Dependent Variable:**  $Y_i$
- Population Y intercept:**  $\beta_0$
- Population Slope Coefficient:**  $\beta_1$
- Independent Variable:**  $X_i$
- Random Error term:**  $\epsilon_i$
- Linear component:**  $\beta_0 + \beta_1 X_i$
- Random Error component:**  $\epsilon_i$

## REGISTRATION AND FEE PAYMENT

Registrations will be done on first-come-and-first-serve basis, as the number of seats are limited. Interested candidates can contact **Dr. Mukesh Sharma** (Assistant Professor, Department of Economics), for registration. Participants are required to fill E-Registration form available at University Website. Selected candidates will be informed on or before November 7, 2019 and they will have to pay Registration fees on November 13<sup>th</sup> 2019 between 8:00 AM – 9:30 AM. For further queries, you may contact:

❖ Dr. Mukesh Sharma 9728384665  
[mukeshsharma598@gmail.com](mailto:mukeshsharma598@gmail.com)

❖ Mr. Vaibhav Chaudhary 9878373588  
[vaibhavchaudhary003@gmail.com](mailto:vaibhavchaudhary003@gmail.com)

### REGISTRATION FEE

- ❖ CRSU/LOCAL PARTICIPANTS : 200
- ❖ OUTSTATION PARTICIPANTS : 600

**NOTE:-** The registration fee includes workshop kit, morning and evening tea, for all the participants. However the outstation participants will be provided boarding and lodging facilities, on prior request.

### MODE OF PAYMENT

Registration fee will be accepted in cash only at the registration counter, Department of Economics, CRSU, Jind.

### ACCOMODATION

Boarding/Lodging facilities will be provided to the outstation participants on his/her request. Female participants shall be provided accommodation at Girls' Hostel, whereas male participants will be provided at Boys' Hostel on sharing basis. They may contact Mr. Vaibhav Chaudhary for details (M: 9878373588, E-Mail: [vaibhavchaudhary003@gmail.com](mailto:vaibhavchaudhary003@gmail.com))

**For the resource persons, the University Guest House is available.**