



# TWO WEEK WORKSHOP ON **ECONOMETRIC RESEARCH**

29th Aug - 09th Sept 2022



**Organised by** Faculty of Economics,  
Chitkara Business School, Chitkara University, Punjab

## **CHITKARA UNIVERSITY**

Chitkara University is a private university established in 2002. Chitkara University is ranked 80th in Management Category by NIRF 2022. Chitkara University is a globally recognized organization encouraging academic excellence through interdisciplinary applied research and expanding realms of knowledge through innovation. With its philosophical core commitment towards excellence in education, Chitkara Educational Trust established Chitkara Institute of Engineering & Technology in 2002; Chitkara International School, Chandigarh in 2004; Chitkara University, Himachal Pradesh under Himachal Pradesh State Legislature in 2008; and Chitkara University, Punjab in 2010; which was established under the Punjab State Legislature.

Today, Chitkara has 12 schools in the fields of Engineering, Management, Architecture, Nursing, Healthcare, Pharmacy, Media, Arts & Design, Education, Hospitality, Applied Sciences, and Applied Engineering. Comprising of more than 13,000 students and 900 faculty members, Chitkara University is one of the best universities in North India that is also recognized by the government with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956.

## **CHITKARA BUSINESS SCHOOL**

Chitkara University B-school was established in the year 2008 in the campus of Chitkara University. College programs enable the students to find the route to success at the intersection of theory and practice, discover and implement innovative solutions to real-world problems. You gain not only cutting-edge business knowledge but also intensive practical business experience thus giving you an invaluable competitive edge. College is ranked among top B-schools in India. College has faculty which includes people from the core academics having vast experience in academics and industry.

## **ABOUT THE WORKSHOP**

The two week Workshop on Econometric Research will help the students to understand the nuances of the Economic Research. The purpose of this two-week workshop on Econometric Research is three fold. First, we try to discuss the relationship between the universe of economic theory with that of economic data and econometrics. Second, we discuss research methodology tools for specific areas of econometrics. Third, we discuss applications of econometric tools and analysis of results to some specific areas of Economics like Health, Education Public Finance

etc. The emphasis is on the practical mode of teachings which will help the participants to learn the technicalities for handling software for data analysis in a systematic manner. Thus the schedule is aiming to have a topic wise brief discussion on theory followed by thorough practical sessions. The workshop is proposed to give a thorough exposure to the Cross Sectional and Panel data analysis and the related econometric tools. The participants will get a good training on two important software SPSS and STATA and will learn how to conduct data analysis using them. By the end of the programme they will be able to develop their conceptual clarity and practical knowledge to run the software for analysis and interpreting the data for their research.

### **Workshop Objectives**

The main objectives of workshop are to make students:

- ☞ Understand the Basic concepts of Social Science Research
- ☞ Understand the process of Econometric Research
- ☞ Learn the use of Descriptive Statistics in Economic Research
- ☞ Understand the idea of Research Design
- ☞ Understand the concept of Hypothesis Testing
- ☞ Understand the Regression Analysis and its Interpretation
- ☞ Learn the Statistical software to make Economic interpretation easy

### **Workshop Outcomes**

- Awareness about the structure of Econometric Research
- To develop the critical thinking in students for better decision making
- To provide exposure to the students for economic

### **Target Audience**

The target audience of this two-week workshop on econometric research are the students from Social Science background viz; Economics, Commerce, and Management, the students are from Undergraduate or post-graduate programs. The course is designed in such a way that will accommodate all the doubts of the students from the mentioned disciplines. The students will learn the following content in two-weeks:-

## Workshop on Econometrics Research

- **The contents are as follows:**
- Foundation of Social Science Research; Purpose and Procedures
- Types of Econometrics Research (Theoretical and Applied)
- Steps involved in Econometrics Research
- Identification of Research Problem
- Formulation of Research Objectives and Research Question
- Review of related Literature
- Research Design; case study and observation
- Cross-Section, Time-series and Panel/Longitudinal study design
- Questionnaire Design
- Data Collection; Tools and Techniques and Methods of Data Collection
- Statistical Distributions; Poisson, Binomial, and Normal
- Hypothesis Testing; Parametric and Non-Parametric
- The test of significance and economic interpretations
- Descriptive Statistics and its use in econometric research
- Origin of the regression analysis and modern interpretation
- Concept of Population regression function and Sample regression function
- Difference between regression and correlation
- Concept of Classical Normal Linear Regression Model (CNLRM)
- The concept of Disturbance term and its properties (Stochastic error term)
- Simple Regression and Multiple Regression Analysis
- Concept of Multicollinearity and Autocorrelation and its impact of regression Analysis
- Identification of Heteroscedasticity problem
- Goodness of Fit ( $R^2$ ) and Adjusted  $R$  Square
- Concept of Degrees of Freedom
- Regression Diagnostics
- Software application in econometric research and interpretation of the results.
- Licensed and Open source statistical software used in Econometric research
- EXCEL, SPSS, STATA, and EVIEWS
- How to write a research paper
- Importance of E-resource on Social Science Research and its use in writing a Research Report
- Citation, Reference and Bibliography (Some styles of referencing)

## Resource Persons



**Prof. Suparn Sharma**

Dean, Faculty of Management  
Shri Mata Vaishno Devi University  
Katra (J&K)



**Prof. Ashok Mittal**

Former Vice-Chancellor  
Dr. B. R. Ambedkar University, Agra  
Former Head Department of Economics  
Aligarh Muslim University  
Adjunct Professor, NLU, Bhopal



**Prof. Dinesh Kumar**

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## Conveners

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