

## Event report

### Two Week Workshop on Econometrics

29<sup>th</sup> August to 09<sup>th</sup> September 2022

Prof. Dhiresh Kulshrestha and Prof. Sandhir Sharma  
Chitkara Business School, Chitkara University, Punjab

#### 1. Objectives of the event

- To enhance the research skills of the students
- To provide exposure of Economic analysis to the students
- To help students understand the nuances of applied research
- To make students familiar with Statistical Software used for research analysis

#### 2. Total no of attendees in the event: 30

#### 3. Name of the external resource persons with their full affiliations

Sr. No	Name of the resource person	Full affiliation	Place
1.	Prof. Suparn Sharma	Dean of Faculty of Management, SMVDU, Katra, J&K, India	Jammu and Kashmir
2.	Prof. Ashok Mittal	Adjunct Faculty at NLU, MP	Madhya Pradesh India
3.	Prof. Dinesh Kumar	Department of Economics, Chaudhary Charan Singh University	Meerut, UP, India.

#### 4. About the event:

**Day one** (29<sup>th</sup> August 2022), the workshop started with the icebreaker session delivered by Prof. Dhiresh Kulshrestha, Dean of Economics, Chitkara Business School, he elaborated on the foundation of the social science research and how mathematics and statistics plays a pivotal role in this process. The importance of data in social science research and related concepts were discussed in the first session, followed by the types of data and data collection methods. He also extensively discussed various methods of data collection and different tools that can be used for data collection. The session was concluded with a brief discussion with the participants of the workshop.

**Day two** (30<sup>th</sup> August 2022) Dr. Narinder Kumar, Assistant Professor, faculty of Economics, Chitkara Business School, delivered the session on fundamentals of Social Science research, and the selection of research design. Various types of research designs were discussed by taking relevant examples viz; case studies and real life problems to make students understand the titbits of research. The importance of research design on the basis of the types of data were also discussed and the session was concluded with a case study of consumption and income hypothesis.

**Day three** (31<sup>st</sup> August 2022) of the workshop, Dr. Narinder Kumar, continued as the resource person. He elaborated on the cross-section, time series, panel/longitudinal study designs. And integrated the knowledge of statistics with econometrics research. He introduced the participants to the basic econometrics models and how modelling of research problem can be done with fair understanding of mathematics. The concept of Population regression function and Sample regression functions were discussed. The session was concluded with hands session on various statistical software viz; STATA and SPSS, EXCEL along with this some rules of hypothesis testing were discussed with participants.

**Day four** (1<sup>st</sup> September 2022) of the workshop. The faculty of Economics, invited Prof. Suparn Sharma, Dean of faculty of Management, SMVDU, Katra, J&K. he was invited as the keynote speaker for the workshop. He deliberated on the various types of theoretical distribution, viz; Probability and non-probability in which he discussed the Poisson distribution, Binomial distribution, and Normal Distribution. He introduced students to the methods of selection of tests in the hypothesis testing. Both the Parametric and Non-parametric tests were discussed in detail, followed by hands on session by Prof. Suparn Sharma. He also taught students how to run tests on STATA and SPSS. To which we are highly grateful.

**Day five** (2<sup>nd</sup> September 2022) Prof. Suparn Sharma, continued as the resource person of the workshop, the session started with the revision of the hands on session and then he chronologically discussed the origin of the descriptive statistics and how it was adopted in social science over the period of time. Prof. Sharma extensively defined the genesis of classical regression models and how regression as techniques became the most important method of data analysis for economists. Prof Suparn Sharma discussed that how the limitations of correlation lead to the emergence of regression technique and why one is more preferred over other in various situations. Prof. Sharma concluded the session by taking the queries of the students and satisfying there doubts in most patient way.

**Day six** (5<sup>th</sup> Setptember 2022) of the workshop. Prof. Ashok Mittal, Adjunct professor at NLU, former Vice-chancellor, B. R. Ambedkar University, Agra. Blessed our participants with his presence in the workshop as the distinguished keynote speaker. Prof. Mittal delivered immensely enriching session on the 6<sup>th</sup> day and the session was started by introducing the participants to the origin of the Classical Normal Linear Regression Models (CNLRM) in Econometrics. He discussed 10 classical assumptions of regression to make students understand the essence of econometrics as a branch of Economics. He also discussed the concept of Disturbance term with the participants and laid numerous real life examples to make students

understand in best possible way. The session concluded with defining the meaning of simple regression model and multiple regression model.

**Day seven** Prof. Ashok Mittal, continued as resource person and shared his wisdom on the 7<sup>th</sup> day of the workshop (6<sup>th</sup> September 2022). The session was started by discussing in detail the concept of simple regression model and the concept of dependent variable, independent variable, intercept and slope coefficient and the concept of BLUE estimator that is the essence of the Classical Linear Regression Models. Prof. Mittal also extended the concept by taking multi-variate case of the classical regression. The second half of the session was focused on the identification of the problems in Classical regression models such as, multicollinearity, autocorrelation, heteroscedasticity, and how to deal with these issues. Prof. Mittal also provided practical approach to identify these problems with the help of various software. At the end the queries of the participants were handle patiently by Pro. Ashok Mittal sir.

**Day eight** (7<sup>th</sup> September 2022) of the workshop, Prof. Dinesh Kumar, the eminent Professor of Economics, former head of the department of Economics, Chaudhary Charan Singh University, Meerut (U.P), was invited as eminent resource person. Prof. Dinesh Kumar started his session by defining the regression diagnostics, R Square, Degrees of freedom, adjusted R square, t value, and p value. He elaborated on the economic interpretation of the regression results and integrated the results with the economic theory. The session was concluded with the practical session by Prof. Dinesh Kumar, the interpretation of the regression results were discussed with the participants.

**Day nine** (8<sup>th</sup> September 2022) Prof. Dinesh Kumar, continued as the distinguished speaker on the 9<sup>th</sup> day of the workshop. The session started with the regression analysis on the various countries case. The expert shared the data files with the participants to run the regression results. The case study of India, Malaysia, Singapore and other countries were discussed by the eminent speaker. The problem of GDP with respect to FDI, Import, Export, Trade Intensity, were taken as the variable for the regression analysis.

**Day Ten** (9<sup>th</sup> September 2022) of the workshop, the eminent speaker discussed the steps involved in writing the research report and a research paper. He deliberated on the possible challenges to writing a research problem. In the session half of the session, the eminent speaker defined the method of writing in text citation, and reference and bibliography for a research report and research paper. Prof. Dinesh Kumar, concluded the session by discussing in detail the Do's and Don'ts in Research report writing in a social science.

**Valedictory:** Valedictory event was held at Warren Buffet Hall, Chitkara Business School, Chitkara University on 9<sup>th</sup> September 2022. The worthy Registrar, Dr. S. C. Sharma, was invited as the chief guest of the event, the distinguished guest Prof. Dinesh Kumar, Prof. Sandhir Sharma, Dean of Chitkara Business School, Prof. Dhiresk Kulshreshtha, Dean of Economics, Prof. Neeraj Anand, Dean of SCM and General Management, Prof. Rashmi Aggarwal, Assistant Dean, Mr. Sundeep Singh, Deputy Registrar, Faculty members of various departments were present. The Formal address was proposed by Dr. Narinder Kumar, followed by a detailed report of the workshop presented by the Dean of Economics, Prof. Dhiresk Kulshreshtha. After that for the Convener's address, Prof. Sandhir Sharma, shared his wisdom with the participants and highlighted the importance of Econometrics. After the convener's address, the guest of Honour,

prof. Dinesh Kumar shared his experience at Chitkara University and expressed his gratitude for the Chitkara University. After that, The chief guest of the day, Dr. S. C. Sharma, worthy Registrar of Chitkara University Punjab, shared his wisdom and congratulated the faculty of Economics, Chitkara Business School for conducting such an intellectual discourse in the shape of two-week workshop on Econometrics. The Chief Guest's address was followed by the certification ceremony, where the dignitaries distributed certificates to the participants. Dr. Narinder Kumar, proposed the formal vote of thanks and the event was concluded with a group photograph.

#### 5. Photographs:







Glimpses of workshop on econometrics organizers with Resource Person