

# € TRAINING

Principles of Econometric And Its  
Applications Using Statistical Analysis SPSS



4 - 15 November 2024  
Dusseldorf (Germany)

# Principles of Econometric And Its Applications Using Statistical Analysis SPSS

REF: F1447 DATE: 4 - 15 November 2024 Venue: Dusseldorf (Germany) - Fee: 10100 Euro

## Introduction:

The aim of this course is to enable knowledge of concepts and theory of theoretical and applied econometrics and to impart basic skills in the analysis of economic models. It also builds and evaluates econometric models and time-gap models, and corrects any potential problem that may arise with these models to reach the goal by testing hypotheses, estimating policy and decision making, and then predicting future economic events.

## Course Objectives:

At the end of this course the participants will be able to:

- Study of the principles of economics and accounting,
- Study of the of economic analysis of financial markets,
- Corporate finance, and business decision making.
- Receive the necessary knowledge by focusing on specialized modules on accounting, financial markets, investment valuation, corporate finance, and international monetary economies.

## Targeted Audience:

- Research and Development / Product Development Teams looking for direct connections
- Business Development Staff looking to proactively open up new opportunities
- Financial Officers looking to design-execute original finance-accounting econometric research studies
- Revenue Officers looking to develop new forms and insights for marketing and competition research
- Board Members looking to fully monetize Big Data for the shareholders/stakeholders

## Course Outlines:

### Unit 1: A look at the Nature of Econometrics:

- Definition of econometrics
- Why study econometrics
- Methodology of econometrics

### Unit 2: Introduction to Statistics and Program SPSS:

- Identify some statistical concepts
- Learn about the SPSS program

### Unit 3: Linear Regression:

- The meaning of linear regression
- Linear regression of society eg
- Random variable in society
- The nature of the random variable
- Linear regression of the sample
- Estimation of transactions using the lower squares small

#### Unit 4: The Simple Linear Model:

- Simple linear regression
- Scattering and standard error for measuring the smallest squares
- Why we use the method of squares and their characteristics
- Testing hypotheses
- Data quality  $R^2$
- Results report

#### Unit 5: The Multiple Linear Model:

- Multiple linear regression
- Multiple regression model assumptions
- Transaction estimation
- Data quality  $R^2$
- Test the hypotheses for each coefficient
- Hypothesis test for all combined transactions F test
- Results report

#### Unit 6: Independent Qualitative Variables and Linear Regression:

- The nature of the qualitative variables
- Linear regression of one variable is qualitative
- Linear regression of more than one qualitative variable
- Use of qualitative variables
- The qualitative variable as a dependent factor

#### Unit 7: Criteria for Selecting The Model:

- Good model specifications
- errors when using the models
- Remove or add a variable to the form
- Use the models
- Errors in the measurement or estimation process

#### Unit 8: Relationships Between Independent Variables in The Model:

- What is pluralism in the relationships between independent variables?
- The theoretical implications of pluralism in relations between variables
- How to verify the existence of pluralism in relations between independent variables
- How to process the form.

#### Unit 9: Variability of The Variable:

- What is the instability of the random variable?
- The theoretical consequences of the instability of the random variable
- How to verify that the random variable is unstable
- How to process the form.