ECONOMETRIC MODELLING

PROF. SUJATA KAR
Department of Management Studies
IIT Roorkee

PRE-REQUISITES : Any graduates with basic mathematical knowledge or mathematics till 12th standard.

INTENDED AUDIENCE : MA (economics) & MBA

INDUSTRIES APPLICABLE TO : Companies that are into data analytics or market research would value this course.

COURSE OUTLINE :
This course is designed to give the students an exposure to the basic concepts of econometrics. However, the basic content also attempts to cover parts of time series analysis.

The course is structured to be primarily theoretical with an aim to provide an understanding of the mechanism, mathematics and economics behind the tools and techniques used. The concepts will be explained with examples using mostly MS Excel.

The course will have the advantage of developing a strong theoretical background which would help the students to better understand applicability of various methods and tools in different economic contexts or scenarios.

ABOUT INSTRUCTOR :
Prof. Sujata Kar is an Assistant Professor with the Department of Management Studies, IIT Roorkee. She is an economist by training with BSc (Hons.) in Economics from University of Calcutta, MA in Economics from Jawaharlal Nehru University and PhD from IIT Kanpur. She has more than 9 years of teaching experience in several public and private academic institutions in India. She has published research papers in various national and international journals.

COURSE PLAN :

Week 1: Introduction

Week 2: Overview of Classical Linear Regression Model

Week 3: Multiple regression analysis and diagnostic tests

Week 4: Statistical inference and hypothesis testing

Week 5: Univariate Time Series Modelling

Week 6: Models with Binary Dependent and Independent Variables

Week 7: Multivariate Models

Week 8: Modelling Long Run Relationships