

Main Topics

(Detailed Contents)

(Stat-401)

Revision of Simple Linear Regression Models

Determination of simple linear regression- Ordinary Least Square Method Estimators- (OLS)-Properties of (OLS) estimators.

Multiple Regression Models:

The Nature of Linear Multiple Regression Model- Ordinary Least Square Method Estimators- (OLS)-Statistical Inference of Ordinary Least Square Method Estimators - Dummy Variables- The Consequences of Multicollinearity-Detection of Multicollinearity. Seasonal Adjustment-Remedy of Autocorrelation.

Non-Linear Regression Models:

Non simple Linear Regression – Transformation Technique – Non Linear Regression Models-

Generalized Least Square Models:

Generalized Least Square Method Estimators- Heteroscedasticity- Heteroscedasticity test- Autocorrelation Problem-The Consequences of Autocorrelation- Durbin-Watson test- Simultaneous Equations Models- Sequential Reminders- Instrumented Variables-lagged Explanatory Variables Models.

Systems of Simultaneous Equations:

Consumption Function – Covariance coefficient - Instrumented Variables- Errors of Variables.

Identification Problem:

Non-identification Equations- Supply and Demand Model- Identification by using Previous information- Identification by using previous information for Exogenous Variables-Problem of increasing the identification.