

SYLLABUS :-

Concept of regression, Simple linear regression, multiple linear regression, model adequacy checking, transformations and weighting to correct model inadequacies, diagnostics for leverage and influence. Polynomial regression models, orthogonal polynomials. Classical techniques of Time Series Analysis, Different Smoothing Techniques, General linear process, Autoregressive Processes $AR(P)$, Moving average Process $Ma(q)$: Autocorrelation, Partial autocorrelation and Spectrum, Identification in time domain, Forecasting, Estimation of Parameters, Model diagnostic checks, Elements of ARCH and GARCH models, Use of time series techniques in Finance.