

CA502 COMPUTER BASED OPTIMIZATION TECHNIQUES

Prerequisite: None

Aim: To introduce various optimization techniques and their computer implementation.

Course Content: Optimization Problems; The Simplex Algorithm; Duality; Computational Considerations for the Simplex Algorithm Max-Flow and Shortest Path; Transportation Problem, Assignment Problem; Integer Linear Programming; Cutting-Plane Algorithm for Integer Linear Programs; Branch-And-Bound and Dynamic Programming;

Book: Christos H. Papadimitriou and Kenneth Steiglitz: Combinatorial Optimization (Algorithms and Complexity).