## **Optimization Techniques**

Course Code: ME 478 Course Type: Area Elective Credits: 3 Theoric: 3 Practice: 0 Laboratory Hour: 0 ECTS: 5 Prerequisite Courses: Linear Algebra [1] **Differential Equations** [2] Course Language:

English

Course Content:

Principles of one-dimensional optimization. One-dimensional search methods. Optimality conditions. Optimization of multi-variate functions. Unconstrained and constrained optimizations. Analysis and classification of constraints. Analytical and numerical methods in optimization. Reduction and transformation of optimization problems. Genetic algorithms.