Course 50594 - Optimum Design in Engineering

Computer Work:

Evolutionary Multiobjective Optimization Software: NSGAII

Objectives:

- To use a evolutionary multiobjective optimization software

- To execute different parameters in some test cases (at least two functions): variation of population size and mutation rate should be considered at minimum.

- To analyze and evaluate the effect of the chosen parameter set in the algorithm convergence by using the hypervolume metric.

- To find a combination of parameter for each problem, which achieves good results.

Procedure:

In the computer laboratory, students follow the professor instructions. They allow to guide step by step in a common mathematical test case. Later, the students will apply these to other functions chosen by themself. A report has to be written with the process, results and conclusions.