Project

1 PROJECT REQUIREMENTS

1. **START AND PROBLEM DEFINITION**: Set up a **team of 2 students** and choose a research topic related to **solving an optimization problem**.
2. **RELATED WORK**: Study recent scientific papers which present a method/algorithm/heuristic for solving the problem.
3. **PROPOSED APPROACH**: Develop a **metaheuristic algorithm** to address the problem (it can be a metaheuristic used in one of the previous labs or it can be one of the methods presented in one of the papers identified in step 2). Propose **a modified version** of the selected metaheuristic (by changing search operator, including a new component, hybridization with another method, etc.).
4. **COMPUTATIONAL EXPERIMENTS:** Perform **experiments** for the original metaheuristic and its modified version. Analyse comparative results.
5. **RESULTS:** A report should capture at least the following: problem definition, algorithm used (name, steps/pseudocode), parameter setting, comparative results of experiments, discussion of results, future improvements.

Points for the project: **150p**

2 TO DO

1. Lab 9: Set up the team

What	When	Points
START AND PROBLEM DEFINITION	Lab9	-
Present **RELATED WORK**	Lab10	25p
Present **PROPOSED APPROACH** • Present the idea • Show the method implemented	Lab11	25p
Present **COMPUTATIONAL EXPERIMENTS** • Present the dataset(s) • Show preliminary experiments performed	Lab12	25p
Project Presentations • Present the approach • Discuss results • Provide conclusions	Lab13 and Lab14	75p
	Total	**150p**