Metaheuristics for Optimization

Report Guidelines

2022

1 Introduction

For TP3 and TP7 you will have to implement a method described during class and submit a report (max 4-5 pages) with an original description of the results obtained with your code.

You will have a limited amount of time to complete your report (two weeks) : respect the deadline reported on the assignment, otherwise, there will be a penalty. In case of troubles respecting the deadline due to personal problems, please contact the assistant **before** reaching the deadline.

The reports will be evaluated in the following weeks.

2 Reports

2.1 Submission

You are requested to submit your reports before the specified deadline, uploading your files on Moodle (do not upload archives like .zip files).
Your submission must include :

1. Your report in .pdf format
2. Your code

The accepted programming languages are C , C++, python, matlab. If you choose a compiled language, your code should be trivial to compile (e.g. add a script to lunch the compilation). You can write your report either in English or French. Do not zip your files before the upload on Moodle.

2.2 External libraries

You are only allowed to use standard and general purpose libraries (e.g. numpy, matplotlib, std libraries). You must not use libraries that are related to optim- ization or metaheuristics.

2.3 Report structure

Your report should be organized in sections. An example of the sections that you could include in your report is :

1. Introduction : brief description of the problem at hand
2. Methods : presentation of the important aspects of the method that are needed to understand algorithm (try to summarize it with a diagram or pseudocode), results and conclusions
3. Results : presentation of the results obtained with your code, provide tables and figures

4. Discussion : based on your results, comment what you obtained without asserting what you cannot prove

5. Conclusion

6. References

Anyhow, every report must always contain at least *title*, *student name*, *brief method description* and *result discussion*.

Do not discuss in details your code, but focus on the key features of the method, your results and how they relate to the theory. You are strongly encouraged to use LaTex to create your report.

2.4 Figures & Tables

Each figure must be captioned (it should be self-consistent) and a number referenced in the text. The images and tables must to have :

1. Name of the axes or row/columns

2. Units of measure, when necessary

3. The right axes scale (*eg.* linear or logarithmic)