

Selected Topics on Optimization

Project Guidelines

Proposal

Sections: Your proposal must have at least these sections

Cover: Project Title and team members. Your project should be named: *Computational Experience with Heuristics for the XXX*, where XXX is the name of the problem you are searching)

Section 1: Introduction

Here you introduce your problem, do some research and say why is important, why is relevant, what practical applications are related to it. Cite appropriate references.

Section 2: Problem description

Here you formally define your problem, remembering the four fundamental parts (1-data, what you know about the input data; 2-decisions, what you have to decide; 3-optimization, what you want to optimize; 4-constraints, how a feasible solution is defined). After you introduce all this, you must add the CORRECT mathematical model.

All this info is in the papers I gave you, so make sure you careful define everything and that you cite the papers adequately.

Section 3: Problem example

Then, to make sure you understand the problem, you are going to build/provide an example of a small instance to your problem. Make up some data, draw figures if you have to and illustrate both a feasible solution to your problem and how the objective function is evaluated for that feasible solution.

References

The last section is called References (unnumbered) that contains the list of references cited in your work. Make sure that every reference listed here is cited in the report. Follow the correct format, using the documents available at:

http://yalma.fime.uanl.mx/~roger/work/teaching/class_tso/docs_project/

The example files are: bibliography-style.doc and bibliography-style-b.doc.

Report format: Use 11-point times new roman font, with 1.3 line spacing for the main text. Sections titles are in bold 12-point. Margins should all be set to one inch (top/bottom/sides)

Grading policy: Introduction (20 %), Problem description (40%), Example (30%), Correct use of references (10%).

More Help: For your convenience, so you can have ideas on how to write these sections, take a look at the papers available at:

http://yalma.fime.uanl.mx/~roger/work/teaching/class_tso/docs_project/sample_articles/

These are papers about some combinatorial optimization problems published in "*Ingenierias*" the scientific outreach magazine of our FIME. Just use them as sample, DO NOT write abstracts, and DO NOT WRITE your report in double column.

The sections below are NOT required NOW, but in the final report.

Section 4-Description of Heuristics

Section 5-Computational Work

Section 6-Conclusions