Mini Projects

Each course module contains a mini project. The mini projects provide examples of how issues in science and technology can be addressed with computational methods. By working with the mini projects, students get training to (1) formulate and implement algorithms to solve computational problems, and (2) write reports about computational investigations.

The mini projects are mandatory. The teacher will specify a deadline for each mini project report. You must meet the deadline. (If you have not finished the project by the time of the deadline, you should nevertheless leave a report about the work you have done that far.)

Format of the mini project report

Below is a template for the mini project reports, in the form of an outline with recommended headlines. Under each headline is an explanation of what the corresponding section of your report should contain. The report should begin with a title followed by the names of the authors.

Introduction

The Introduction should provide a brief description of the application addressed in the mini project and of the particular issue(s) to be investigated. This report should be written so that it is accessible to other readers than the teacher.

It is allowed to base the introduction on the mini project description you got from the teacher. In that case, it is important that you reformulate the description so that it becomes shorter and is expressed in your own words. However, the description must not be so short that it requires access to the original document to be understandable.

Approach

In this section you should summarize your approach to the problem. You should give an account for the algorithms you have chosen to use. Moreover, you should give arguments why these algorithms are appropriate in this context. In this section you may also show pseudo code or extracts of Matlab code. However, the complete program text should not be inserted here, but in an Appendix.

Some mini projects consist of several parts. Then, it is recommended that the “Approach” section has one subsection for each part of the project.

Results

Here, you should report the results of each part of the project. To demonstrate that the program works as intended, there should be examples of program
execution (use the `diary` command in Matlab). You should also present the actual results in a relevant way.

It is important that you convince the reader that you have been able to carry out the mini project according to the requirements in the mini project description. To that end you need to comment on the results and give arguments for their correctness.

**Discussion**
In this section you place the additional comments that you find relevant to make, if any. Some of the mini projects explicitly contain issues to discuss. They should be addressed in this section.

**References**
Here you should include a list of the literature that you cite in the report.

**Appendix**
Your must include your Matlab programs in an appendix to the report. Other material that you want to include but that does not fit in the main text can also be included as appendices.