## DD142x Examensarbete inom datalogi

# **Project specification**

Authors/students:
Tentative project title:
Supervisor:

It is recommended that project specification includes the following:

#### 1. Introduction

- What is the general subject and context?
  - Set a general background for your study in a couple of sentences.
  - o You could cite some relevant literature sources here.
  - o If you happen to introduce some abbreviations/acronyms, please use them consistently in the remaining part of the specification.
- Why is it interesting or important?
  - Briefly motivate your study, this could be particular scientific value, societal, environmental etc. relevance.

#### 2. Problem statement

- What is the problem that is going to be investigated in the project?
  - o This can be formulated as a research question (literally as a question).
  - O Avoid questions like "is it possible" or "how can ... be done" or "what is the best approach to....." as they are open-ended with no good answer or hypothesis to offer, not concrete enough. Formulate a question that your study can conclusively address (later on, in the conclusion section of your thesis you will have to concretely answer the question posed).

- Try to be as precise as possible but this can be adapted at a later stage in the thesis (do not consider the problem formulated in the specification as the final one, it can evolve and change during your study).
- If you have a hypothesis prior to your study, please do not hesitate to express it. It is common to have prior expectations about the outcomes.
- Has this or a similar problem been investigated before, maybe in a different context (cite relevant literature sources)?

### 3. Approach

- How are you going to solve the problem, address your research question? What is your strategy/planned approach?
  - o What methods will you consider (not necessarily apply) and why?
  - o If relevant to the project, what data will you use? Is the data already available or will you have to find it/generate it?
- How will you evaluate your results or outcomes of your study?
  - o What measures/metrics or quantitative criteria will you rely on?
  - The emphasis is on measurable, quantitative outcomes but you can complement them with qualitative criteria.
  - Please consider also if you should use some sort of statistical analysis of your quantitative results to demonstrate statistical significance of your evidence (it may be necessary to conclusively address your question); bear in mind random, stochastic effects that your study is vulnerable to.

#### 4. References

- List important and most relevant references that you have identified so far
  - o Ideally, you should already refer to them in your project specification, i.e. in the Introduction, Problem Statement and/or Approach sections.
  - Try to concentrate on academic type of resources and please use consistently one of the standard citation styles and referencing formats, e.g. IEEE, ACM, Vancouver, Harvard, APA.
- 5. Time plan (present a time plan for the project, for example as a Gantt chart).