

## MSc Proposal Structure

**Title:** Short and specific

**Abstract:** max 250 words, the first sentence is the most important, should include at least one sentence for each of the following: research problem, objective, methodology, results, audience.

### **Introduction:**

Background: context of the problem, overview of most relevant work, definition of the problem

Objective: purpose of the research

Significance: what is new or original, why is this research important or significant,

Method and Results Overview: basic description on how the objective is achieved, and what are the main results, what are the implications of the results, again what the significance of the results is

Project Outline: Organizational Chart. This is a key scheme that can describe your thesis methodology or research procedure, or research content and structure.

Research Outcome: What is the research outcome (product, guidelines, manual, website, app, map, tool, web tool, program, book, prototype, database, map, game, infographic, cartographic guide, equation, model, benchmark, simulation model, checklist, framework, methodology, theory, policy, strategy, etc...)

Audience: Who is the research audience?

Organization: make a logical architecture of the research, the research will be organized as follows...

Quad Chart: **Title, Aim/Objective, Audience or Stakeholders, Impact and Innovation**

### **Literature Review or State of the Art:**

Background: extended definition of the problem, extended overview of most relevant work.

Literature Review Matrix or Table: Classification and comparison of key publications

Literature Review Analysis and Synthesis: Grouping the publications based on their methodology, findings, chronology or other...

Originality: relate your work to the review and identify the innovation, originality and importance of your research in the context of the literature review.

### **Methodology:**

Research Design: explain.

Methodology: How did you do your work? Did you use qualitative or quantitative methodology? (Describe how you did the work and not what you did).

Methodology Robustness: The methodology has to have a clear protocol and process that is based on open source techniques allowing anyone to reuse the same methodology and repeat the work.

Methodology Limitations: explain.

### **Expected Results:**

What is your expected results.

Validation: Describe how the work will be validated. Are you going to compare the simulation result with measured results? How are you going to calibrate your model?

Are you going to use case studies to validate your design assumptions?

Triangulation: Are you going to use triangulation techniques to avoid bias and subjectivity? Important for qualitative research techniques (survey, questionnaire, interview...)

Internal Validity and External Validity: If this research is repeated by someone else would we get the same results? Can the results be generalized in other similar context?

### **Preliminary study:**

Pilot Study: If you have any preliminary studies you did in this topic?

**Project Outline:**

Project Outline: Organizational Chart. This is a key scheme. Who are the stakeholder you will meet, or interview or contact for your work? What key millstone are you going to reach?

Gantt chart: The main tasks expected to be accomplished during the upcoming years are presented in a Gantt Chart. This includes the Milestones and Tasks and activities on a weekly basis.

**Expected Publications:**

Conferences: PLEA, IBPSA, etc...

Journals: Energy & Buildings, etc...

**Bibliography:**

Follow the journal references style (APA)

**Prerequisite and Activities:**

What courses do you need to follow for your thesis? What activities or events you need to attend to accomplish your thesis?

**Supplementary Documents**

CV

List of Publications

Supervision Acceptance Letter