Graduation Project Proposal Template

College of Electrical & Mechanical Engineering
Department of CS IT, Software Engineering

This document is prepared by the Software Engineering department. Its purpose is to help CSIT and Software Engineering students compile their undergraduate project proposal document in doing their final year project.

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Important note about writing a proposal

Proposals are informative and persuasive writing because they attempt to educate the reader and to convince that reader to do something (e.g. give you funding). The goal of the writer is not only to persuade the reader to do what is being requested, but also to make the reader believe that the solution is practical and appropriate. In persuasive proposal writing, the case is built by the demonstration of logic and reason in the approach taken in the solution. The effectiveness of your proposal will depend on your ability to explain the nature, context and scope of your project.

Most proposals will have all of the following sections; It is recommended but not required that you follow the listed order, however a few proposals flow better with sections in a different order – this is fine, just be sure that there is a logical flow to your writing. It is also recommended that all proposals use headers for each section. Your proposal should consist of the following contents. You should replace your own writing over this template without changing the format and fonts.

Cover Page

College of Electrical & Mechanical Engineering

Department of CSIT, Software Engineering

Undergraduate Project proposal

Title: Title of your project

Group Members:

No.	Name	ID
1.	……..	…….
2.	……..	……..
3.	……..	……
4.	……..	……

Advisor Name: _____ Signature_____

dd/mm/yy

1. Problem Statement (with Background)

Very clearly state what you will be studying. Be sure that this is understandable to someone who doesn't know much about your field of study. If needed, define terms. To test your explanation – give this to a friend not in your major. If he/she doesn't understand, try again!

Clearly support your statement with documentation and references, and include a review of the literature that supports the need for your research or creative endeavor. A discussion of present understanding and/or state of knowledge concerning the question/problem or a discussion of the context of the scholarly or creative work. This section presents and summarizes the problem you intend to solve and your solution to that problem. What is the question that you want to explore in your research and why is this an interesting and important question?

2. Project Goal and Objectives

Goals and Objectives are often confused with each other. They both describe things that a person may want to achieve or attain but in relative terms may mean different things. Both are desired outcomes of work done by a person but what sets them apart is the time frame, attributes they're set for and the effect they inflict. Both the terms imply the target that one's efforts is desired to accomplish. For further difference see table 1 below. Example:

- Goal: Our after-school program will help children read better.
- Objective: Our after-school remedial education program will assist 50 children in improving their reading scores by one grade level as demonstrated on standardized reading tests administered after participating in the program for six months.

Table 1: Goal and Objective differences

	Goal	Objective
Meaning	The purpose toward which an endeavor is directed	Something that one's efforts or actions are intended to attain or accomplish; purpose; target
Time frame	Long term	Short term
Measure	Cannot be measured	Can be measured
Example	I want to achieve success in the field of genetic research and do what no one has ever done	I want to give you the thesis on genetic research within this month
Type	Intangible	Tangible
Action	Generic action	Specific action
Plan	Broad plan	Narrow plan

3. Scope

If your project is a portion of a larger problem, the background should describe the research in general, on a large scale, but the project description should be all about what you are going to do. In this section, clearly state what is not addressed by your project.

4. Significance of the project

This section should include how your project benefits or impacts the problem as a whole and what knowledge is gained from your piece of the project.

5. Methodology

Generally, design and describe a work plan consistent with your academic discipline. This may include scientific research in the physical or biological sciences, use of population samples, experimental and control groups, or other methods of data gathering and statistical analysis. The work plan may include archival research, translating, ethnographic fieldwork, solitary thinking, or other forms of analysis and synthesis of ideas and concepts in the arts and humanities. This section of the proposal should explain the details of the proposed plan. How will you go about exploring your research question? What will be your methods?

Specific to Computer Science and/or Software engineering, methods similar to mentioned above can be used, for example to collect user requirements and/or evaluate the positive impact of your system on the problem domain. However, since your project involves development of a software application, you should talk which software processes, methods, and tools you are going to use to construct the software. You should also state how you will test and evaluate the final system.

6. Project Schedule

Give an overview of when you are going to do specific steps of your project. This does not need to be a day to day list but depending on the length of your project it may give an overview biweekly or monthly. Be sure to include time to review/synthesize your data or to reflect on the experience. You should include time to write the final report/paper. You can use graphics like Gantt chart. Gantt chart looks like the following (figure 1).

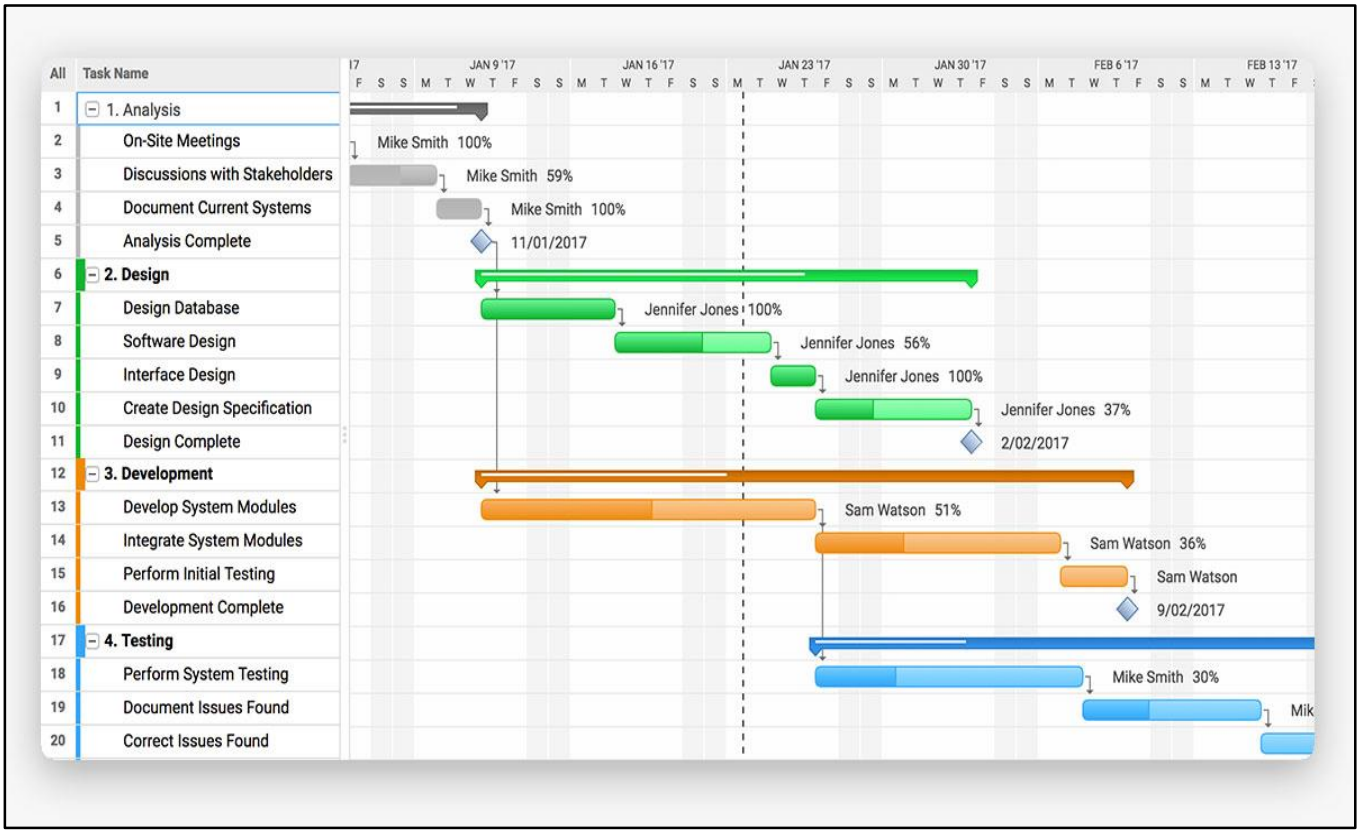

Figure 1: An example of Gantt chart

7. References

Properly cite all the references used. Reference format for different types of documents:

Books:

J. Watkinson, The MPEG Handbook, Focal Press, Oxford, 2001.

Article:

C.-H. Chi, Y. Cao, and T. Luo, "Scalable Multimedia Content Delivery on Internet," in Proceedings of the IEEE International Conference on Multimedia, Lusanne, Switzerland, August 2002.

Website:

Zona Research, "The Economic Impacts of Unacceptable Web Site Download Speeds," white paper, 1999, retrieved from http://also.co.uk/docs/speed.pdf, Last accessed on June 10, 2014.

In the main text, references should appear like the following . . .

> Internet of Things (IoT) has a lot of applications in healthcare [1], agriculture [4], weather forecasting [20], and many other sectors.

When you write list of references in the references section, you should list them based on the order appeared on the main text. For example,

[1] *J. Watkinson, The MPEG Handbook, Focal Press, Oxford, 2001.*

[2] *C.-H. Chi, Y. Cao, and T. Luo, "Scalable Multimedia Content Delivery on Internet," in Proceedings of the IEEE International Conference on Multimedia, Lusanne, Switzerland, August 2002.*

[3] *Zona Research, "The Economic Impacts of Unacceptable Web Site Download Speeds," white paper, 1999, retrieved from http://also.co.uk/docs/speed.pdf, Last accessed on June 10, 2014.*