

# Title of Final Year Project

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*Submitted in partial fulfillment of the requirements for the degree of B.Sc. ICT in  
Software Development (Hons.)*

**Abstract:**

Here is a one page summary of the project. The emphasis should be on motivation, challenge, solution proposed and results. It should give the reader an opportunity to assess in a few seconds whether it is of interest to him or her.

It is worthwhile remembering that this is not a murder mystery, so tell the reader what you have achieved without forcing him or her to read through the rest of the report before they can understand the results of the project.

This abstract should not exceed one page, and does not count towards the page limit.

### **Acknowledgements:**

This section should be used to record any debt for the use of facilities or help from particular sources. You should mention any organisations that have helped fund the project. Also, for placement students, it would be diplomatic to include the name of the supervisor in the host organisation where the student was placed and any of his or her colleagues who helped you.

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# Title of Final Year Project<sup>\*</sup>

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Supervised by: Albert Einstein and Johannes Keppler

October 2017

**Abstract:** This is a summary of the dissertation. It must be less than 300 words long. It should give enough information to allow a potential reader to decide whether or not the whole dissertation will be of interest to them. It should briefly describe the main features of the dissertation including the aims and conclusions, brief overview of the results obtained and a critical statement of the success of the approach. It should be both self-contained and self-explanatory, and it should refer to anything not mentioned in the rest of the dissertation.

## 1 Introduction

Introduce the area and the FYP without assuming that the reader has any special knowledge in the area.

- The aims and goals of the project.
- Any non-aims of the project (e.g. in a purely theoretical project, the development of an artifact would not necessarily be an aim).
- The approach used.
- Any assumptions.
- A high level description of the project.

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## 2 Background and Literature Review

The purpose of the background section is to provide the typical reader with information that they cannot be expected to know but which they will need in order to fully understand and appreciate the rest of the project.

This section may describe such things as:

- the wider context of the project,
- the anticipated benefits of the system,
- the likely users of the system,
- any theory associated with the project,
- the software/hardware development method(s) used,
- any special diagramming conventions used,
- existing software (or hardware) that is relevant to the system,
- Etc...

Note on the Typical Reader: in the case of an FYP the potential readers would usually be:

- The supervisor(s).
- An external examiner.
- Other ICT students.

Since projects will likely include different kinds of theory, programming language choices, compilers, software/hardware components, APIs, development boards, IC technologies, one cannot always assume that the reader will be familiar with the details of all of them. Certain assumptions may be made on the background of the potential reader (e.g. it would be fair to assume that the audience will be familiar with general programming concepts, object oriented principles, basic circuit theory and system design). However, when more esoteric choices are made (e.g. dependency on a proprietary image processing library or design kit), the author will want to elaborate and use references to guide the reader.

The literature review component of the report should include:



- An extensive study in the area of interest, highlighting the strengths and weaknesses of existing methods.
- A review of the state-of-the-art published material in the area.
- A summarization of the published material in the area.
- A critical analysis of existing material and methods.
- An explanation showing why the literature chosen to review is relevant to the FYP.

### 3 Specification and Design

The purpose of this section is to give the reader a clear picture of the system/artifact/project/work that has been created in the FYP and why it has been created in the way chosen.

Details:

- Fine details, specifically details of the system (software or hardware) should be left out. Also, any complete rigorous specification is better relegated to an appendix.
- Using diagrams (including but not limited to flowcharts and system level block diagrams) is strongly recommended.
- Any design choices have to be justified (e.g. by discussing the implications of different design choices and then giving reasons for making the choices made).
- The design of the project will almost certainly have evolved during development. Focus should be made on the project as it is in its final state but often there are good reasons for describing intermediate states too (e.g. to discuss details of the design method used).

### 4 Implementation

The Implementation section is similar to the Specification and Design section in that it describes the system but it does so at a finer level of detail, generally down to the code/theorem/algorithm/circuit/hardware... level. It can also describe any problems that may have arisen during implementation.

- In case of a software development describing of all the code in the system should be avoided as well as large pieces of code. Complete source code listings should be put on the accompanying digital media (e.g. CD or DVD). In case of hardware the system should be divided into sub systems or circuits that may be easily described and analysed.
- One must be especially critical to the operation of the system.
- Mentioning unforeseen problems encountered during implementation.
- Explanation of a seemingly disproportionate amount of project time taken up in dealing with such problems. The implementation section gives you the opportunity to show where that time has gone.

## 5 Testing and Evaluation

The testing and / or evaluation component of an FYP is critical.

- One has to make sure and explain why all tests used to evaluate the system are relevant, using evidence from the literature about similar systems, and justifying any deviations from standard approaches;
- Demonstration that system works as intended (or not, as the case may be);
- Include comprehensible summaries of the results of all critical tests that have been made;
- If the student has not had time to carry out fully rigorous tests (in some cases, the student may not have had time to produce a testable system) suggestions as to what tests would be and why they are relevant is important;
- The student must also critically evaluate the system in the light of these tests results, describing its strengths and weaknesses;
- Ideas for improving it can be carried over into the Future Work section;
- Comparison of practical with theoretical results and their interpretation.

## 6 Future Work

Whether by the end of the project all the original aims and objectives have been completed or not, there is always scope for future work. Also the ideas will have grown during the course of the project beyond what the student could hope to do in the time available. The Future Work section is for expressing these unrealised ideas. It is a way of recording 'I have thought about this'. A good Future Work section should provide a starting point for someone else to continue the work which has been done.

## 7 Conclusions

The Conclusions section should be a summary of the project and a restatement of its main results, i.e. what has been learnt and what it has achieved. An effective set of conclusions should not introduce new material. Instead it should draw out, summarise, combine and reiterate the main points that have been made in the body of the dissertation and present opinions based on them.

The Conclusions section marks the end of the dissertation proper.

## References