Guidelines for Preparation of Dissertations
BSc (IT) and BSc (IT) Hons.

Prepared by

Prof. Asoka S. Karunananda

Faculty of Information Technology
University of Moratuwa

2008

Guidelines for preparation of Dissertation
BSc (IT) and BSc (IT) Hons.

Your dissertation must be prepared according to the following instructions. This includes general guidelines, assembling of pre pages, and structuring of body of the text. It should be noted that the Draft final report and the Final Dissertation have the same format. The Draft should be submitted in the form of Spiral binding while the Final Dissertation in the hard-bound form.

1. General Guidelines

Submission: Three (3) hard-bound (Spiral binding for the Draft) copies of the dissertation must be submitted to the Faculty of Information Technology. You must also keep a copy for your personal use.

Colour: Blue (Applicable to final Dissertation only)

Paper: The dissertation should be printed on good quality A4 size paper, on single side

Lettering: Times New Roman. Size will change as per chapters/sections, etc. Cover and Spine should be in GOLD lettering.

Printing: A laser quality printing, do not use colours.

Spacing: 1.5 line spacing must be used for the body of the text and the list of Reference entries. Only footnotes, quotations, table and figure captions, may be single spaced.

Margins: Left, 1-1/2 inches; top, bottom, and right, 1 inch.

Chapters and Sections: All chapters must be numbered (Arabic). Chapter names and the headings of the chapters must be 18pt and bold. Each chapter should have a section called Introduction at the beginning and a Summary at the end. Sections through Introduction to Summary must be structured with subsections, if necessary, and numbered accordingly. Headings of sections and subsections must be 12pt and bold. *See the sample for chapters and sections (Appendix A).*

Tables and Figures: All Tables and Figures must be named with captions, and cited inside the text. *See the sample for using tables and figures (Appendix B).*

Reference and citations: The list of Reference must be arranged in alphabetical order of the name of the first author, and numbered in square brackets. The corresponding number of a reference must be used to cite the particular work inside the text. All items in list of reference must be cited inside the text. *See the sample for reference and citations (Appendix C).*

Appendixes: Appendixes must be named in alphabetical order (Appendix A, Appendix B, ...), and also give a name for each appendix. All Appendixes must be cited inside the text through its name.

Cover page: Print the following information by leaving appropriate line spacing
- Title of the Project (16pt, bold, centered)
- Your name (12pt, centered)
- Index Number (12pt, centered)
- Faculty of Information Technology (12pt, centered)
- University of Moratuwa (12pt, centered)
- December 200x (12pt, centered)

Spine of the dissertation: The following information should be printed from top to the bottom of the spine. The Degree must be BSc (IT) or BSc (IT) Hons. as appropriate.

Title   Degree   Year

Page numbering: All page numbers must be centered at the bottom of each page. Roman numbering must be used for pre pages. No page numbers for the title page. Arabic numbering must be used for the body of the dissertation.

Title Page
- Title of the Project (16pt, bold, centered)
- Your name (12pt, centered)
- Index Number (12pt, centered)
- Type the following (12pt, centered)
    > Dissertation submitted to the Faculty of Information Technology, University of Moratuwa, Sri Lanka for the partial fulfillment of the requirements of the Honours Degree of Bachelor of Science in Information Technology.
- December 200x (12pt, bold, centered)

2. Assembling of Pre pages
The pre pages includes: Declaration, Dedication, Acknowledgements, Abstract, Table of Contents, List of Figures and List of Tables. These headings must be centered. Use the Roman numbers to number the pre pages.

Declaration: Type the information given in the sample below (*Appendix E*) .

Dedication: Optional, but nice to have it

Acknowledgements: Thanks to those who helped (supervisor, friends, parents, etc.) you.

Abstract:
> *This should be one page description that comprises of problem that you address, your approach (users, input, output, and process), analysis & design, implementation, evaluation and conclusion. Write more about your work. Do not use citations, abbreviations and further works in an abstract.*

Table of Contents
> Here you should list headings of chapters/sections/subsections with page numbers. *See the sample for table of contents (Appendix F).*

List of Figures/Tables
> Here you should list Figures/Tables captions followed by names, with page numbers. *See the sample for list of figures and tables (Appendix G).*

3. Body of the Dissertation
Dissertation must be structured with reference to the following chapters. Depending on the project the structure may slightly change. Note that the names of the headings given below are too generic and you must rename them to reflect about your project. All headings must be numbered (12pt, bold), and body of the text in must be in 12pt. Do not use any decorations on headings. *See the sample for chapters and sections.*

Introduction
> *This may have two-three sections. In the first section you should write brief introduction including background and motivation for the project. In this you must also show the importance of the problem with the support from literature. This section should have citations to refer to items in the list of reference. Then write Aim and Objectives of the project under a separate heading. In the next section, briefly state about your solution in terms of users, input, output, process, technology, features, and system requirements. As the third paragraph, you should also add a section about the structure of the dissertation. For example, Chapter 2 describes the problem domain. Chapter 3 is on …….*

Review of others' work
> *Give a suitable name for this heading. For example: Current issues in MIS. This section should give a full description about background information of the project. Based on a literature survey, you should state about others' approaches to solve similar problems and highlight your problem. Try to provide a table for comparison of different approaches. This section should necessarily have citations to refer to items in the list of reference.*

Technology adapted
> *Sometimes, you may have more than one chapter for this topic. Give a suitable name for this heading too. An example title could be Expert Systems - beyond MIS. Here you should state about the technology that you adapt to solve the problem. Clearly point out how/why these techniques are appropriate to solve your problem. This should not be a description of some technologies, without referring*

to the problem that you address. This section should also have citations to refer to items in the list of reference.

Your Approach

Again give a name to reflect what your project is about (e.g. Using expert systems for expanding MIS). Here you write on how you adopt the technology to solve the said problem. This description may be presented with reference to users, inputs, outputs, process, technology that implements the solution.

Analysis and Design

This contains details of design (or analysis and design) of your solution. Here you should necessarily include a diagram to show at lest the top level deign of the proposed system. Describe the modules in the diagram stating WHAT each module does and its interaction with other modules/components. When ever you introduce a Figure/Table remember to name Figures/Tables with a caption, and cite Figure (using the caption) in the body of the text.

Implementation

In the interim report, this section was not be very descriptive. However, here you provide implementation details of each module that is stated in the design diagram. Remember to maintain the consistency between design and the implementation sections. In describing the implementation, you should state about, software, hardware, flowcharts, algorithms, pseudo codes, code segments as per each module in the design. All these flowcharts, algorithms, etc. may be defined as figures or listing and cite them inside the text. Extra details of implementations (e.g. source codes, screenshots) should go to an Appendix.

Evaluation

Report on how you evaluate the solution to see whether objectives have been achieved. Experimental design, selection of participants, control experiments, interview techniques, design of questionnaire, etc. must be stated here. Here you should also present the results from the evaluation in graphs, charts, tables, etc. Additional details about the evaluation may go as an appendix.

Conclusion & Further work

Here you conclude the overall achievements quantitatively in the first place. After that you should state about the achievement of each objective. Also mention about problem encountered, limitations of your solution, and some further work.

Reference

Here you should give details of citations that you have used in the text. An entry in list of reference generally includes information such as Author, Year, Title of the Article, Name of Journal/conference, page numbers. There are various reference and citation styles, but you should use the one shown in the sample.

Appendixes

You may have several appendixes to refer to further details related to chapters like: Technology adapted, Analysis and Design, Implementation, evaluation, etc.

Use the following chapter format together with the prescribed font sizes.

Chapter 3

Artificial Intelligence – The State of the Art (18pt)

3.1 Introduction (12pt)
Briefly report on what you said in the previous chapter. Then report on what this chapter is about.

3.2 Major Areas of AI
You must always write something under sections/subsections. Do not limit such a description to one line, but write at least few lines.

3.2.1 Expert Systems

3.2.2

3.10 Summary
Summarize key points that you have presented in this chapter. Write also one-two lines on what the next chapter is about.

Whenever there is a figure/table you must cite it as follows. Note that the caption Figure 3.1 reads as figure 1 of the chapter 3. As such, a caption must be defined with reference to the respective chapter number.

…………………………The top level architecture of the proposed system comprises of there modules, namely, user interface, student database, and expert system. Figure 3.1 shows the interaction among these modules. *Then write more about these modules.*
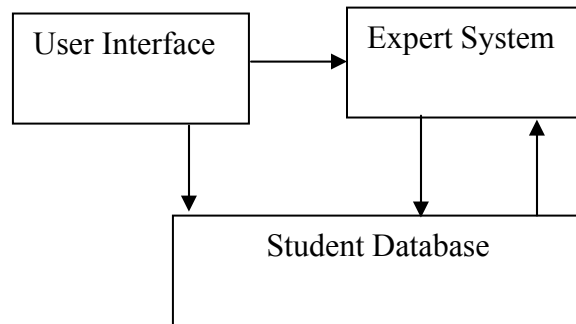
Figure 3.1: Top Level Architecture of the Proposed System

Inside the body of the text, you should refer to items in the list of reference in the following manner (using square brackets). This is a process of citing of others work.

…………………..Semantic web has been identified as a major application area of ontological modeling [2]. At present, there are many sources to obtain information about the state of the art of semantic web research [1, 3]. Silva [2] has identified five issues in ontological modeling.

In order to cite inside the text in the above manner, the list of reference must be arranged as follows. Note that this list is prepared in accordance with the alphabetical order of names of authors. The list of reference appears after the chapter on conclusion and further work.

References

[1] Perera, A. B. (2003), *Applications of ontological modeling,* Journal of Ontology, 3(2), pp 120-145

[2] Silva, A (2004), *Using Semantic Web,* In proceedings of the 8th International Conference on Ontological Modelling, pp 150-170, Tokyo, Japan

[3] www.sematicweb.org/sources.html

Declaration

We declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

Name of Student (s)   Signature of Student (s)

Date:

Supervised by

Name of Supervisor(s)   Signature of Supervisor(s)

Date:

Contents

Below is the format for List of Figures. Use the same format for List of Tables too.

List of Figures