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KING ABDULLAH II SCHOOL OF
INFORMATION TECHNOLOGY

الجامعة الأردنية
THE UNIVERSITY OF
JORDAN



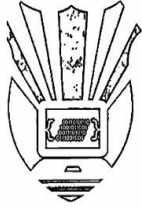
GUIDELINES FOR PREPARING GRADUATION PROJECT REPORT

Prepared By:

Dr. Mohammad A. M. Abushariah

**King Abdullah II School of Information Technology
The University of Jordan**

March 2016



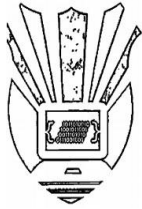
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GUIDELINES FOR PREPARING GRADUATION PROJECT REPORT

1. GENERAL GUIDELINES

Graduation project course is a partial requirement for the fulfillment of the bachelor degree in Computer Science, Computer Information Systems, and Business Information Technology at KASIT. It provides students the opportunity to implement what they learnt in a real world solution or system. In this handbook, we provide information about the graduation project's process, evaluation criteria, deliverables, a suggested documentation template, and forms.

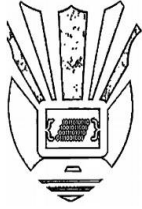
1.1 Graduation Project Process

After the graduation projects groups are formed, each group's members are encouraged to meet with their advisor in order to complete a proposal. The proposal preparation should not take more than one week. The advisor should review the proposal and make a decision. At the same time, each group should submit the required forms to their departments.

After the advisor approves the proposal, **the group should immediately start working on the project and the documentation.** During the semester, the whole group should regularly meet with their advisor to discuss both, the completed and the upcoming tasks. At each meeting, the group members are encouraged to complete a discussion minutes form that documents the meeting agreements and to submit a progress report that shows the completed and the upcoming tasks. The groups are required to complete the project and to submit its deliverables to their advisor at least one week before the defense day.

1.2 Advisor(s) and Examiner(s)

Each graduation project student will be assigned a faculty member from the same department to serve as an advisor for the project. Each advisor can form several groups from the student that he/she advises. **Each group should have at least two students and at most four.** There may be more than one advisor for the group especially when it consists of students from different departments. The advisor responsibility is to provide guidance and to evaluate the group's efforts.



Before the projects defense day, the department will announce two examiners for each group. The examiners will attend the project's defense and provide their evaluation.

1.3 Graduation Project Progress and Supervision

After the advisor approves the project's proposal, the group should start working on their project and deliverables including the graduation project documentation. At the first meeting, the advisor should determine the duration between the subsequent meetings. The group should continuously keep their advisor up to date with their progress and the obstacles that they face.

1.4 Graduation Project Deliverables

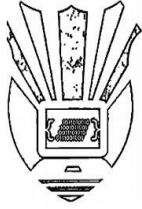
Each group should submit two copies of the project's software (including source code files) and the documentation to the advisor. The advisor will retain one copy and submit the other to the department. A soft copy of the project's documentation and the documentation should be uploaded to e-learning as well. The group is required to complete the project and to submit its deliverables to their advisor **at least one week before the defense day.**

1.5 Graduation Project Evaluation

In the project's defense, the advisor and the examiners are going to investigate the project's deliverables with the group. Then, they are going to complete the evaluation forms. These forms evaluate the students in two perspectives 1) group based 2) individual based. Finally, a final evaluation form is submitted to the department.

1.6 Graduation Projects Defense

All the graduation projects' defenses will be scheduled in the last day of classes. A complete schedule for all the defenses will be announced at an early time. The schedule shows each group's defense time, locations, and examiners.



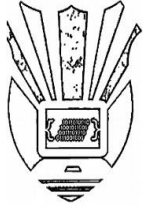
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1.7 Academic Integrity and Plagiarism

If a student of the group or the whole group is/are found guilty of plagiarism, they will face a punishment. There are several ways of punishments that may include, but are not limited to: graduation project failure, or scaling down the students grade. **The group should complete and sign the anti-plagiarism form that is attached with this handbook and submit it to their advisor at their first meeting.** This form certifies the students' intention not to commit any plagiarism, cheating, or any other academic integrity violation.



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**The University of Jordan
King Abdullah II School of Information Technology
Anti-Plagiarism Declaration**

This is to declare that the graduation project produced under the supervision of _____
_____ having the title
“ _____ ”

is the sole contribution of the student(s) below and no part hereof has been reproduced illegally (in particular: cut and paste) which can be considered as **Plagiarism**. All referenced parts have been used to support and argue the idea and have been cited properly. I/We certify that I/we will not commit any plagiarism, cheating, or any other academic integrity violation. I/We will be responsible and liable for any consequence if violation of this declaration is proven.

Date: _____

Graduation project group's student(s):

Name: _____ **Signature:** _____

Name: _____ **Signature:** _____

Name: _____ **Signature:** _____

Name: _____ **Signature:** _____



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2. APPEARANCE

2.1 Paper

High quality 80 gm A4 paper shall be used. The paper should be white in colour, acid free and non-erasable kind.

2.2 Type of Machine/Software

Students are encouraged to use a personal computer (PC) or laptop to write their graduation project report. Near-letter quality impact printers or laser-jet printers may be used, however, dot-matrix printers and ink-jet printers are not acceptable. Any word processing software such as Microsoft Word or WordPerfect would be suitable to write the graduation project report. Students may also use Microsoft Excel, Lotus 123 etc. for any tables, calculations or any other applications.

2.3 Font Size

The basic text should be in “Times New Romans” of font 12 point. However, 10 point font size may be used for footnotes, captions, figures, tables and other print outside the basic text.

2.4 Font Style

Only one font style may be used throughout the entire graduation project report, including the title-page, signature page, acknowledgement, **bibliography** and appendices. Exceptions to this can only be made for tables/ figures/ illustrations imported from other sources. Italic variants of the font style may be used for headings, labels, foreign words, book titles or occasional emphasis. The usage of bold variants of the same font style and understanding in the text of headings and titles is at the student’s discretion.

2.5 Line Spacing

The line spacing should be generally set at 2.0 (double spacing). Single spacing may be used only in the following cases:

- a) Acknowledgments
- b) Tables of Contents, as long as there is double spacing between entries of two chapters and/ or other major sections such as Bibliography and Appendices.
- c) List of Tables/ Figures/ Illustrations/ Cases
- d) Abstract
- e) Quotations set off from the text, of more than 40 words and indented eight spaces in from left and right margins.
- f) Captions of figures and Tables.
- g) Footnotes
- h) References
- i) Index

2.6 Headings

Chapter headings are to be centered and written in (bold) capital letters. The maximum size acceptable for Chapter Headings is 14 point. Other sub-headings are to be aligned to the left margin and should be of 12 point in size. The use of capital or small letters, underlining and boldfacing in the sub-headings is at the student's discretion.

2.7 Paragraphs

Spacing between two paragraphs should be set at 4.0 points. The first sentence of a paragraph should be indented to 1.25 cm. A Heading that appears as a last line on a page will not be accepted. There should be a minimum of two lines of a paragraph at the bottom of the page under the Heading.



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2.8 Binding

The first submission of the graduation project report manuscript for evaluation and examination purposes should be in temporary binding. Hole-punching and spiral binding of the manuscript may be acceptable for temporary binding.

Final submission of the graduation project report must be in permanent hard-cover binding. Information printed on the cover and the spine must be with good-colored letters of between 18 and 24 point size. The color of the cover must be **black**.

3. FORMAT/LAYOUT

3.1 Margin

When typing the original manuscripts, the following margins should be observed (also please refer to the sample in the appendices):

LEFT: 3 cm (This margin is wide for binding requirements)

TOP: 2 cm

RIGHT: 2 cm

BOTTOM: 2 cm

Excepting from page numbers, all other manuscripts material must fit within these margin requirements (including tables, figures, graphs, etc.).

3.2 Page Numbering

Every sheet of paper in the manuscript except the title page must be numbered. The title page is 'i' but not numbered. Preliminary pages (all pages before the body of the text) such as abstract, acknowledgments and table of contents are to be numbered in lower case Roman numeral (ii, iii, iv, etc). The main text pages are to be numbered in Arabic numerals (1, 2, 3, etc) and all pages must be numbered. The page number must be centered to the text, not to the page and must be placed at the bottom of the page. Since the bottom margin is 3.0 cm, the page number must appear 1.3 cm from the bottom of the page. No dashed, periods, underlining or other marks should appear before, after or under the page number.

3.3 Justification

The graduation project report must be fully justified (i.e. have even left and right- hand margins).

3.4 Figures and Tables

All figures and tables should be placed after their first mention in the text. Figure caption should be below the figures while table caption should be above the table. They should be referred in the text, for example, Figure 1 or Figure 1.1, and for tables Table 1, or Table 1.1

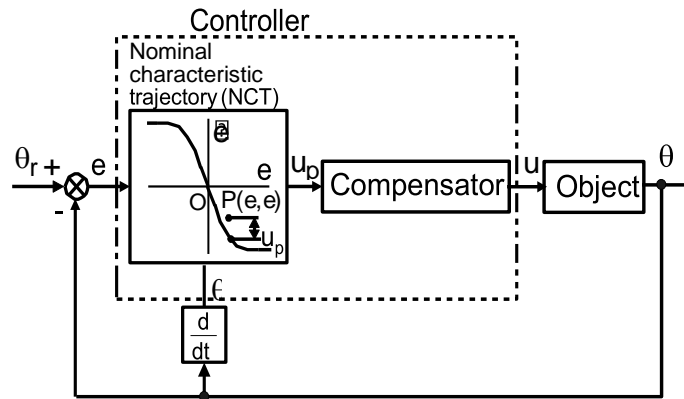
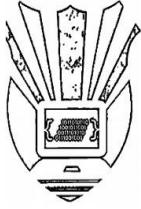


Figure 1: The caption should be placed after the figure

Tables and figures must face out of the binding edge, the 3.8 cm (left) margin then being at the top of the installation. Illustration, tables, or figures requiring more than one page should have the number of caption and the “continued” at the top of each additional page. For example **Table 3 (continued)**.

Table 1: The caption should be placed before the table

| A | B | C | D |
|-----|-------|-------|-------|
| (1) | 0.279 | 0.312 | - |
| (2) | 1.68 | 0.168 | 0.025 |

3.5 Symbols, Units and Equations

Symbols or nomenclature used shall be defined. Standard symbols or acronym normally accepted in engineering can be used. International system unit (SI) shall be used.

Equation number should be Arabic numerals enclosed in parentheses on the right-hand margin. They should be cited in the text, for example, Equation (1) or Equations (1)-(3), or Equation (1.1) or Equations (1.1)-(1.3)

Equations start from the left. Punctuate equations with commas or periods when they are part of a sentence. For example,

$$x = Ax + Bu \tag{1}$$

$$y = Cx + Du \tag{2}$$

3.6 Photographs

Photographs may be attached in any of the following ways:

- a) Students may submit a page with an actual photograph, if the image size conforms to the margin requirements.
- b) If the photograph is smaller than A4 size, students may paste the photograph on a standard sheet of paper, according to the margin requirements, and photocopy it in black & white or in color, as appropriate. Pasted-up pages, however, will not be accepted. High quality and high contrast photocopies must be made of any photographic material.
- c) Students may also use high resolution scanners to scan photographs and reprint them as required through a suitable computer software. In this option, the size of the photographs, margins, color and contrast etc. may be adjusted according to the requirements.

3.7 Slides, Diskettes, CD ROMs, Video or Audio Cassettes

Students may also submit with the graduation project report, any of the above items. Slides, video and audio-cassette recordings must be clear and sharp. All items must be appropriately labeled and must bear the name of the author, title of the graduation project report, name of the degree and the year. The inclusion of any of the above items must be indicated in the graduation project report, and under the section where lists of all Tables, Illustrations etc. are given.

4. ARRANGEMENT AND CONTENTS

4.1 Arrangement

The contents should be arranged in the following order:

- a) COVER & SPINE
- b) TITLE PAGE
- c) ABSTRACT
- d) ACKNOWLEDGEMENTS
- e) TABLE OF CONTENTS
- f) LIST OF TABLES
- g) LIST OF FIGURES
- h) LIST OF SYMBOLS/ABBRAVIATIONS/TRANSLATIONS, ETC.
- i) BODY OF THE TEXT
- j) REFERENCES
- k) APPENDICES

4.2 Cover and Spine

a) Cover

The information printed on the cover page should include the following information exactly in the given order (Please see Appendix A):

- The TITLE of the graduation project report appears at the top of the cover. It should include meaningful keywords descriptive of the subject and the content.
- The NAME of the student used on the cover, must be the same under which the student is registered at UJ. Registration Number of the student should appear following the name of the student.
- The LOGO of UJ.
- NAME OF DEPARTMENT should appear in the next line
- KING ABDULLAH II SCHOOL OF INFORMATION TECHNOLOGY should follow the name of the department.
- THE UNIVERSITY OF JORDAN appears in full capital letters at the bottom of the page.
- The MONTH and YEAR of Submission should appear on the next line.

The title of the graduation project report will be in 18 point and the other texts will be in 14 point font size. The top and bottom margin for the cover page must be 6 cm. All information printed on the cover must be justified centered.

If the graduation project report exceeds 6 cm in thickness, then the binding should be done in two different volumes. In this case the volume number should be printed in Arabic Numbers under the title of the graduation project report, for example, Vol. 1 or Vol. 2.

b) **Spine**

Information printed on the spine must be with gold-coloured letters of between 18 and 24 point font size, and must be in the following order (please refer to appendix B):

- Name of the author(s)
- Volume number (if more than one volume)
- Acronym of the name of the degree (CS, CIS, BIT)
- Month, Year, i.e. May 2016
- Acronym of the University i.e. UJ

The top and bottom margin of the spine should be 5 cm. If a graduation project report is more than one volume, the volume number should be printed in Arabic digits in the center of the spine.

4.3 **Title Page**

The information printed on the title page should include the following information exactly in the given order (Please see Appendix C):

- The **TITLE** of the graduation project report appears at the top of the cover. It should include meaningful keywords descriptive of the subject and the content.
- The **NAME** of the student used on the cover, must be the same under which the student is registered at UJ. Registration Number of the student should appear following the name of the student.
- The **SUPERVISOR(S) NAME(S)**.
- The **LOGO** of UJ.

The title of the graduation project report will be in 18 point and the other texts will be in 14 point font size. The top and bottom margin for the cover page must be 6 cm. All information printed on the cover must be justified centered.

4.4 Abstract

The heading of ABSTRACT appears centred and in full capital letters beneath the top margin (See Appendix D). The abstract consists of

- a brief description of the problem
- a brief description of the methods or procedures used
- a condensed summary of the findings of the study

The length of the abstract should be about 250 words, the maximum being 500 words.

4.5 Acknowledgements

Acknowledgements should be double-spaced under the heading ACKNOWLEDGEMENTS. This section may include appreciation of all those who assisted the author in the preparation of his/her graduation project, particularly the supervisor(s). Please see Appendix E.

4.6 Table of Contents and Lists of Figures/Tables/Symbols

A table of contents (TOC) shows readers the starting page number of each major section and subsection in the report (see Appendix F). The topics to be covered in the report must be carefully selected and organized. The flow of the topics to be presented is very important in order to guide a relatively novice reader in understanding the whole report. To an experienced reader, the TOC gives a quicker way of finding the interested information.

With the similar purpose as the TOC, the lists of figures/tables/symbols is to enable readers to find the illustrations, diagrams, charts, tables and symbol explanation in the report. Figures/tables must be numbered consecutively in order of appearance (see Appendix G, H and I).

4.7 Body of the Text

The MAIN BODY TEXT should normally be divided into chapters such as (See Appendix J):

- Refer to the recommended table of contents for product based reports

(See Appendix L):

- Refer to the recommended table of contents for research based reports

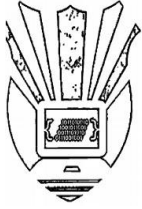
(See Appendix M)

4.8 References

Every reference quoted or cited in the report must be included in the list of references and numbered accordingly. Citation is required for statement which expresses a fact that goes beyond the common knowledge of the art. See Appendix H for detail explanation on references.

4.9 Appendices

This section contains lengthy materials which are not suitable to be put inside the main text, for example raw data, equipment and computer programmes.




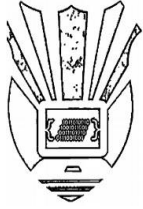
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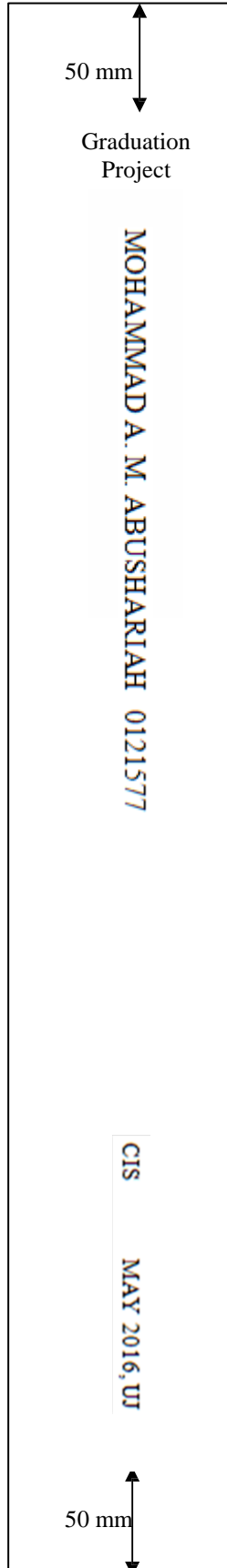


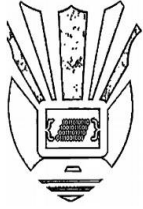
APPENDIX A: COVER PAGE

| | |
|---|------------------|
| 50 mm | |
| TITLE OF THE FINAL YEAR AND CONTROL | |
| AUTHOR NAME | Registration No. |
|  | |
| NAME OF DEPARTMENT KING ABDULLAH II SCHOOL OF INFORMATION TECHNOLOGY THE UNIVERSITY OF JORDAN MONTH YEAR | |
| 50 mm | |



APENDIX B: SPINE





APPENDIX C: TITLE PAGE

50 mm

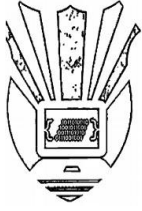
ARABIC AUTOMATIC SPEECH
RECOGNITION

MOHAMMAD A. M. ABUSHARIAH 0121577

Project Supervisor: Name of Supervisor(s)



50 mm



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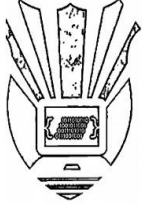
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APPENDIX D: ABSTRACT

ABSTRACT

« A short summary of the project emphasising the novelty of the approach adopted, the actual work performed and the important results obtained in preferably one paragraph and no more than 300 words. »



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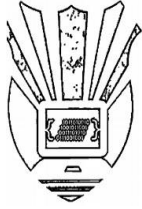
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APPENDIX E: ACKNOWLEDGMENTS

ACKNOWLEDGMENTS

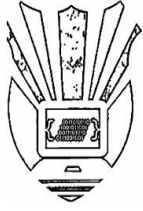
*« Give acknowledgment to any advisory or financial assistance received
in the course of your work. »*



APPENDIX F: TABLE OF CONTENTS

CONTENTS

| | |
|--------------------------------------|------------|
| ABSTRACT | i |
| ACKNOWLEDGEMENTS | ii |
| LIST OF TABLES | iv |
| LIST OF FIGURES | v |
| LIST OF SYMBOLS | vi |
| CHAPTER 1 « <i>CHAPTER TITLE</i> » | 1 |
| 1.1 « <i>Section Title</i> » | «Page no.» |
| 1.2 « <i>Section Title</i> » | «Page no.» |
| | ... |
| CHAPTER 2 « <i>CHAPTER TITLE</i> » | «Page no.» |
| 2.1 « <i>Section Title</i> » | «Page no.» |
| 2.2 « <i>Section Title</i> » | «Page no.» |
| | ... |
| | ... |
| REFERENCES | «Page no.» |
| APPENDIX A « <i>APPENDIX TITLE</i> » | «Page no.» |
| APPENDIX B « <i>APPENDIX TITLE</i> » | «Page no.» |
| | ... |



APPENDIX G: LIST OF FIGURES

LIST OF FIGURES

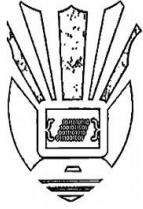
Fig. 1 « *Figure Caption* »

«*Page no.*»

Fig. 2 « *Figure Caption* »

«*Page no.*»

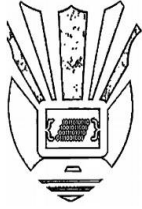
.....



APPENDIX H: LIST OF TABLES

LIST OF TABLES

| | |
|--------------------------------|---------------------|
| Table 1 « <i>Table Title</i> » | « <i>Page no.</i> » |
| Table 2 « <i>Table Title</i> » | « <i>Page no.</i> » |
| | ... |



APPENDIX I: LIST OF SYMBOLS AND ABBREVIATIONS

Note that only important symbols need to be included in this list.

LIST OF SYMBOLS AND ABBREVIATIONS

« *Symbol 1* » « *Symbol Description* »

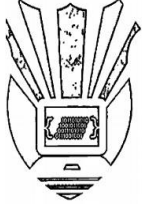
« *Symbol 1* » « *Symbol Description* »

.....

...

“*abbreviation 1*” « *Expansion* »

“*abbreviation 2*” « *Expansion* »



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APPENDIX J: MAIN TEXT

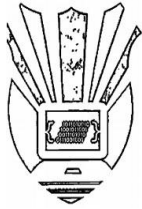
« *CHAPTER NUMBER* »

« *CHAPTER TITLE* »

« *Section no* » « *Section Title* »

« *Text of section ...* »

« *Page No* »



APPENDIX K: REFERENCES

In writing references, the titles of books or journals are italicised. The list of references is not classified or categorized according to the type of material e.g. books, journals, newspapers or magazines.

1 REFERENCING

When student are writing a piece of work it is essential that student provide detailed and precise information on all the sources student have consulted. Always remember to record the details about an item as student use it. The use of public material without acknowledgement is plagiarism for which the penalty will be failure of the graduation project.

1.1 Setting out References

There are two methods by which references can be displayed, the British Standard and Harvard. Once a method has been selected it is important to be consistent in applying it. (<http://www.unn.ac.uk/central/isd/cite/set.htm>).

1.1.1 British Standard (Numeric) System (B.S. 1629:1989) Book

Book

Macdonald, D.J. *Drugs, drinking and adolescents*. Year Medical Publishers, 1984.

Journal Article

Rimmer, L. Family, unemployment and welfare. *Quarterly Journal of Social Affairs*, 2(3), 1986, p. 243-264.

Section in a Book edited by Another

Franklin, A. W. Management of the problem. In: Smith, S.M. (ed.) *The Maltreatment of children*, MTP, 1978, p. 83.

Monograph

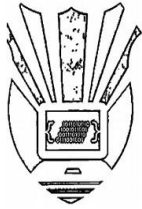
Body, D.M. *Flood Estimation*. Water Res. Board of Australia, 1959, No.4, 41 pages.

Thesis

AGUTTER, A.J., *The linguistic significance of current British slang*. Thesis (PhD). Edinburgh University, 1995.

Conference Proceedings

SILVER, K., Electronic mail: the new way to communicate. In: D.I. RAITT, ed. *9th International Information Meeting, 3-5 December 1990 London*. Oxford: Learned Information, 1991, 323-330.



Web Page

HOLLAND, M., *Guide to Citing Internet Sources* [online]. Poole, Bournemouth University. Available from: http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sources.html, 2004. [Accessed 4 November 2004].

1.1.2 Harvard System

Book

Macdonald, D.J., 1984. *Drugs, drinking and adolescents*. Year Book Medical Publishers.

Journal Article

Rimmer, L., 1986. Family unemployment and welfare. *Quarterly Journal of Social Affairs*, 2(3), p. 243-264.

Section in a Book edited by Another

Franklin, A.W., 1978. Management of the problem. In: Smith, S.M. (ed.) *The maltreatment of children*, MTP, p. 83.

Monograph

Body, D.M., 1959. *Flood Estimation*. Water Res. Board of Australia. No.4, 41 pages.

Thesis

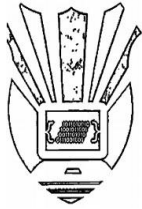
AGUTTER, A.J., 1995. *The linguistic significance of current British slang*. Thesis (PhD). Edinburgh University.

Conference Proceedings

SILVER, K., 1991. Electronic mail: the new way to communicate. In: D.I. RAITT, ed. *9th International Information Meeting, 3-5 December 1990 London*. Oxford: Learned Information, 323-330.

Web Page

HOLLAND, M., 2004. *Guide to Citing Internet Sources* [online]. Poole, Bournemouth University. Available from: http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sources.html [Accessed 4 November 2004].



APPENDIX L: RECOMMENDED TABLE OF CONTENTS FOR PRODUCT BASED PROJECTS

Cover Page
Title Page
Abstract
Acknowledgement
Table of Contents
List of Figures
List of Tables
List of Abbreviations

1.0 CHAPTER ONE: INTRODUCTION

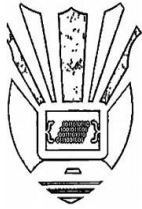
1.1 Preamble
1.2 Project Motivation
1.3 Problem Statement
1.4 Project Aim and Objectives
1.5 Project Scope
1.6 Project Software and Hardware Requirements
1.7 Project Limitations
1.8 Project Expected Output
1.9 Project Schedule
1.10 Report Outline

2.0 CHAPTER TWO: RELATED EXISTING SYSTEMS

2.1 Introduction
2.2 Existing Systems
2.3 Overall Problems of Existing Systems
2.4 Overall Solution Approach
2.5 Summary

3.0 CHAPTER THREE: SYSTEM REQUIREMENTS ENGINEERING AND ANALYSIS

3.1 Introduction
3.2 Feasibility Study
3.3 Requirements Elicitation Techniques
3.4 Targeted Users
3.5 Functional Requirements Definition
3.6 Functional Requirements Specification
3.7 Non Functional Requirements
3.8 Summary



4.0 CHAPTER FOUR: SYSTEM DESIGN

- 4.1 Introduction
- 4.2 Context Diagram
- 4.3 Data Flow Diagram (DFD)
- 4.4 Entity Relationship Diagram (ERD) **(NOTE: ERD is required if your project has a database)**
- 4.5 UML Use Case Diagram
- 4.6 UML Sequence Diagram
- 4.7 UML Class Diagram
- 4.8 Graphical User Interface (GUI) Design **(NOTE: Low Fidelity Prototype (Paper-Based Sketches) or even Medium Fidelity Prototype using special tools such as DENIM Mockup Tool <http://dub.washington.edu:2007/denim/>)**
- 4.9 Summary

5.0 CHAPTER FIVE: SYSTEM IMPLEMENTATION

- 5.1 Introduction
- 5.2 Database Implementation **(NOTE: Required if your project has a database)**
- 5.3 Graphical User Interface Implementation **(NOTE: High Fidelity Prototype (Computer-Based Interfaces - Snapshots)**
- 5.4 Other Components Implementation **(NOTE: You must add implementation details for any component/part of your project. Add a separate section for every component)**
- 5.5 Summary

6.0 CHAPTER SIX: SYSTEM TESTING AND INSTALLATION

- 6.1 Introduction
- 6.2 Heuristic Evaluation
- 6.3 Cooperative Evaluation
- 6.4 Requirements Validation and Completeness
- 6.5 System Installation
- 6.6 Summary

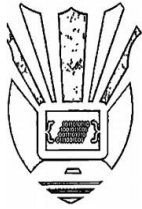
7.0 CHAPTER SEVEN: PROJECT CONCLUSION AND FUTURE WORK

- 7.1 Introduction
- 7.2 Overall Weaknesses
- 7.3 Overall Strengths
- 7.4 Future Work
- 7.5 Summary

REFERENCES

- APPENDIX A: if any**
- APPENDIX B: if any**
- APPENDIX C: if any**

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APPENDIX M: RECOMMENDED TABLE OF CONTENTS FOR RESEARCH BASED PROJECTS

Cover Page
Title Page
Abstract
Acknowledgement
Table of Contents
List of Figures
List of Tables
List of Abbreviations

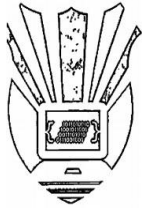
1.0 CHAPTER ONE: INTRODUCTION

1.1 Preamble
1.2 Project Motivation
1.3 Problem Statement
1.4 Project Aim and Objectives
1.5 Project Scope
1.6 Project Software and Hardware Requirements
1.7 Project Limitations
1.8 Project Contributions
1.9 Project Schedule
1.10 Report Outline

2.0 CHAPTER TWO: PROJECT BACKGROUND AND EXISTING SYSTEMS

2.1 Introduction
2.2 Types of Automatic Speech Recognition Systems **(NOTE:include definition of ASR)**
2.3 Arabic Language Forms
2.4 Arabic Language Written and Spoken Resources
2.5 Arabic Language Automatic Speech Recognition Research **(NOTE: include classification of Arabic ASR, techniques, software and tools used)**
2.6 Existing Automatic Speech Recognition Systems
2.7 Overall Problems of Existing Systems
2.8 Overall Solution Approach
2.9 Summary

*** NOTE: Sections 2.2 - 2.5 represent the project background, therefore, students can modify these sections based on the research topic of their graduation projects such as definitions, types, techniques and algorithms used, tools, comparison of previous research work as investigated from the literature, ...etc. In this template, background on automatic speech recognition systems are presented as an example.**



3.0 CHAPTER THREE: SYSTEM REQUIREMENTS ENGINEERING AND ANALYSIS

- 3.1 Introduction
- 3.2 Feasibility Study
- 3.3 Requirements Elicitation Techniques
- 3.4 Targeted Users
- 3.5 Functional Requirements Definition
- 3.6 Functional Requirements Specification
- 3.7 Non Functional Requirements
- 3.8 Summary

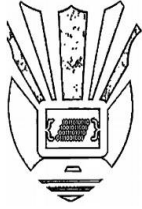
4.0 CHAPTER FOUR: SYSTEM DESIGN

- 4.1 Introduction
- 4.2 Context Diagram
- 4.3 Data Flow Diagram (DFD)
- 4.4 Entity Relationship Diagram (ERD) **(NOTE: ERD is required if your project has a database)**
- 4.5 UML Use Case Diagram
- 4.6 UML Sequence Diagram
- 4.7 UML Class Diagram
- 4.8 Graphical User Interface (GUI) Design **(NOTE: Low Fidelity Prototype (Paper-Based Sketches) or even Medium Fidelity Prototype using special tools such as DENIM Mockup Tool <http://dub.washington.edu:2007/denim/>)**
- 4.9 Summary

5.0 CHAPTER FIVE: SYSTEM IMPLEMENTATION

- 5.1 Introduction
- 5.2 Implementation Requirements and Components
- 5.3 Feature Extraction
- 5.4 Arabic Phonetic Dictionary
- 5.5 Acoustic Model Training
- 5.6 Language Model Training
- 5.7 The Decoder
- 5.8 Graphical User Interface (GUI) Implementation **(NOTE: High Fidelity Prototype (Computer-Based Interfaces - Snapshots)**
- 5.9 Other Components Implementation
- 5.10 Summary

*** NOTE: Sections 5.2 - 5.7 represent the implementation details of every component of the research project, therefore, students can modify these sections based on the research topic of their graduation projects in order to cover the implementation of all components of the research project. It may include implementation details of certain algorithms and techniques used such as Neural Network in training or classification of the system. In this template, implementation details if automatic speech recognition systems are presented as an example.**



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6.0 CHAPTER SIX: SYSTEM TESTING AND INSTALLATION

- 6.1 Introduction
- 6.2 Heuristic Evaluation
- 6.3 Cooperative Evaluation
- 6.4 Requirements Validation and Completeness
- 6.5 System Installation
- 6.6 Summary

7.0 CHAPTER SEVEN: EXPERIMENTAL RESULTS AND ANALYSIS

- 7.1 Introduction
- 7.2 Performance Measures
- 7.3 Experimental Results
- 7.4 Overall Experimental Results Analysis
- 7.5 Summary

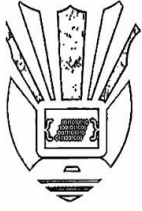
8.0 CHAPTER EIGHT: CONCLUSION AND FUTURE RESEARCH WORK

- 8.1 Introduction
- 8.2 Overall Weaknesses
- 8.3 Overall Strengths
- 8.4 Future Work
- 8.5 Summary

REFERENCES

APPENDIX A: if any
APPENDIX B: if any
APPENDIX C: if any

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GOOD LUCK