Assessment Rubric 2024-25

ELEC4900 Final Year Design Project CPEG4911 Computer Engineering Final Year Project in ELEC

Final Report

Program Outcome	Component	Percen - tage	Exemplary`(A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)					
	Final Report										
	Results obtained	60%	Perform competently and in addition notice improvements that can be made to the design spec. Deliver a prototype of exceptional quality and well-conceived architecture. Plan and execute thorough list of test cases.	Deliver a prototype with a sound architecture and required design specs. Plan and execute list of test cases with expected result specified.	Deliver a prototype that meets the design specs, but can be further improved. Plan and execute some test cases, but not covering all possible cases.	Fail to deliver a prototype that meets the design specs and/or proper methodology. Perform minimal testing, concentrating exclusively on the simplest, most obvious cases.					
	Clarity and presentation of the report (organization, use of English)	30%	Report is well organized and clearly written. The underlying logic is clearly articulated and easy to follow. Words are chosen that precisely express the intended meaning and support reader comprehension. Diagrams or analyses enhance and clarify presentation of ideas. Sentences are grammatical and free from spelling errors.	Report is organized and clearly written for the most part. In some areas the logic or flow of ideas is difficult to follow. Words are well chosen with some minor exceptions. Diagrams are consistent with the text. Sentences are mostly grammatical and only a few spelling errors are present but they do not hinder the reader.	Report is organized via topic/flow, but in some areas it is difficult to follow the flow of ideas. Words can be further improved. Some diagrams are not well explained. Grammar errors that impede the flow of communication.	Report lacks an overall organization. Reader has to make considerable effort to understand the underlying logic and flow of ideas. Diagrams are absent or inconsistent with the text. Grammatical and spelling errors make it difficult for the reader to interpret the text in places.					
	Use of engineering techniques (concepts of system design specification and implementation are included here)	10%	Employ appropriate analytical tools and/or engineering methodologies. Clearly demonstrates mastery of several areas of the curriculum and is able to propose innovative solutions to the technical challenges posed by the project.	Employ appropriate analytical tools and/or engineering methodologies acquired in his course of study to the project at hand. Clearly demonstrate mastery of many areas of the curriculum and is able to successfully complete the proposed project.	Employ some analytical tools and/or engineering methodologies acquired. Make progress towards addressing the technical challenges of the project. Complete most of the major tasks in the proposed project.	Does not make use of analytical tools and/or engineering methodologies relevant to the project. Does not demonstrate requisite command of the material covered in the curriculum. Unable to finish the proposed project.					

Assessment Rubric 2022-23

ELEC4901 Final Year Thesis CPEG4912 Computer Engineering Final Year Thesis in ELEC

Final Report

Program Outcome	Component	Percen - tage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)				
	Final Report									
	Results obtained 60% Report is well organize clearly written. The underlying logic is clearly written. The underlying logic is clear articulated and easy to Words are chosen that precisely express the meaning and support comprehension. Diagrams or analyses and clarify presentation ideas. Sentences are grammatical and free		1	Deliver a prototype with a sound architecture and required design specs. Plan and execute list of test cases with expected result specified.	Deliver a prototype that meets the design specs, but can be further improved. Plan and execute some test cases, but not covering all possible cases.	Fail to deliver a prototype that meets the design specs and/or proper methodology: Perform minimal testing, concentrating exclusively on the simplest, most obvious cases.				
			underlying logic is clearly articulated and easy to follow. Words are chosen that precisely express the intended meaning and support reader comprehension. Diagrams or analyses enhance and clarify presentation of	Report is organized and clearly written for the most part. In some areas the logic or flow of ideas is difficult to follow. Words are well chosen with some minor exceptions. Diagrams are consistent with the text. Sentences are mostly grammatical and only a few spelling errors are present but they do not hinder the reader.	Report is organized via topic/flow, but in some areas it is difficult to follow the flow of ideas. Words can be further improved. Some diagrams are not well explained. Grammar errors that impede the flow of communication.	Report lacks an overall organization. Reader has to make considerable effort to understand the underlying logic and flow of ideas. Diagrams are absent or inconsistent with the text. Grammatical and spelling errors make it difficult for the reader to interpret the text in places.				
	Use of research approaches related to electronic and computer engineering discipline (optimization, analysis, simulation, result verification are included here)	10%	Employ appropriate analytical tools and/or engineering methodologies. Clearly demonstrates mastery of several areas of the curriculum and is able to propose innovative solutions to the technical challenges posed by the project.	Employ appropriate analytical tools and/or engineering methodologies acquired in his course of study to the project at hand. Clearly demonstrate mastery of many areas of the curriculum and is able to successfully complete the proposed project.	Employ some analytical tools and/or engineering methodologies acquired. Make progress towards addressing the technical challenges of the project. Complete most of the major tasks in the proposed project.	Does not make use of analytical tools and/or engineering methodologies relevant to the project. Does not demonstrate requisite command of the material covered in the curriculum. Unable to finish the proposed project.				

Final Year Project (2022 – 2023) Final Report Guidelines

ELEC/CPEG

Your final report extends your earlier progress report to include all the work done on the project to completion. It also provides your assessments of the finalized project. The general structure of both reports is the same, but you will need to add two new sections: an abstract at the beginning and a conclusion at the end. To write the final report, update the information in your progress report as necessary, present all work accomplished since the progress report in the Methodology section, add the two new sections listed above, and most importantly include a full assessment of your work in the Main Objective Evaluation and Discussion section. Instructions about new content to add in the final report are highlighted in red. But note that other sections may also need to be updated to show progress/changes to your project.

<u>Plagiarism</u> refers to paraphrasing or quoting of other people's work and/or using others' ideas without appropriate acknowledgement. Be very careful about rephrasing or excessive quoting from other sources and make sure to cite all sources. Reports will be checked through Turnitin. Those suspected of containing plagiarized material, including unreferenced diagrams, will be referred to the department for investigation and will be penalized accordingly, including <u>failure of the FYP</u>.

Important note for groups: Each group member must write a one-page summary of his or her individual contributions to the project. See details under Guidelines Part 1—Progress Report Format, Appendices, Appendix B.

GUIDELINES PART I—FINAL REPORT FORMAT

FORMATTING REQUIREMENTS

Your report should be formatted as follows:

- Font: 11pt Calibri for main text; 14pt bold Calibri for section headings; 11pt bold Calibri for subsection headings
- Line spacing: single or 1.15
- Paragraphs: single line space between paragraphs, no indentation
- Margins: top 2.54, bottom 1.27, left 1.27, right 1.27cm
- Page numbers: bottom right corner

These requirements are the same or similar to the format used in these guidelines, so use them as a visual guide.

REPORT OUTLINE

Cover Page

Table of Contents

Abstract

Section 1 Introduction

1.1 Background and Engineering Problem

- 1.2 Objectives
 - 1.2.1 Objective Statements
- 1.3 Literature Review of Existing Solutions

Section 2 Methodology

- 2.1 Overview
 - 2.1.1 Product/System Description
 - 2.1.2 System Block Diagram
 - 2.1.3 Components List
 - 2.1.4 ECE Knowledge
- 2.2 Objective Statement Execution
- 2.3 Evaluation & Discussion

Section 3 Conclusion

References

Appendices

Appendix A - Final Project Schedule

Appendix B - Budget

Appendix C – Meeting Minutes

Appendix D – Group Members' Contributions (for groups only)

Appendix E – Deviation(s) from the proposal and progress reports and supporting reason(s)

REPORT CONTENT

Please note that Section 1 starts at Page 1. All other pages before this should be numbered using small Roman numerals, i.e., i), ii), iii), iv), v) etc.

(No page numbers here)

COVER PAGE

- Title of the report
- Project I.D. number
- Name and I.D. number of authors
- Date of report
- List of main objective/s and objective statements (copy from Section 1.2)

(Numbered using small Roman numerals, i.e., i), ii), iii), iv), v) etc.)

TABLE OF CONTENTS

Begin this section on a new page.

Include headings, sub-headings, second- and third-level subheadings etc. and the page number on which each section begins.

(Numbered using small Roman numerals, i.e., i), ii), iii), iv), v) etc.)

LIST OF ILLUSTRATIONS

Begin this section on a new page.

LIST OF FIGURES

List the figure number and heading of every figure in your project report and the page number it appears on.

LIST OF TABLES

List the table number and heading of every table in your project report and the page number it appears on.

(Numbered using small Roman numerals, i.e., i), ii), iii), iv), v) etc.)

ABSTRACT

Begin this section on a new page.

The abstract is a short summary of your project report of no more than 150 words in which you state:

- What you did: give a concise description of the engineering problem.
- Why you did it: outline your motivation for tackling this problem.
- How you did it: the methodology used.
- Key quantitative performance results and the conclusions drawn from these results.

The abstract should state the objectives and the results of the project in layman's terms that are comprehensible to a non-specialist.

By reading the abstract a reader will be able to determine if the information contained in the main text is relevant to them and decide whether or not to read the full report.

(Start your numbering from here)

SECTION 1—INTRODUCTION

Begin this section on a new page.

1.1 Background and Engineering Problem

(minimum ½ page)

Using 2 – 3 paragraphs, introduce the background to your project.

Engineering is about identifying a meaningful problem or need that can be solved or met by a technical approach.

What is the current situation in your area of research?

What is the problem/need you have identified in this area and will try to solve in your project?

What would be the impact of solving this problem or fulfilling this need, i.e., if the problem were to be solved, what will be the benefit to this area of research or to society/users?

1.2 Objectives (minimum ¼ page)

Briefly introduce your proposed solution to the problem in Sect. 1.1 and the objectives behind it. In other words, what are you going to design/build/do to solve the problem and what are the goals you/it needs to meet?

For example, "This project aims to design and build a smartphone-based blood pressure monitoring system that maintains the accuracy of traditional cuff-based measurement results while making blood pressure monitoring more accessible to users."

1.2.1 Objective Statements

To complete your project, you will need to finish a series of modules/stages that have their own objectives. Here, you should create a list of objective statements that reflect the milestones or modules/stages to be completed in your project and the target of each module/stage. This is the most important step in your project. It requires careful consideration. You should include a minimum of three objective statements. However, most projects will have more. Each objective statement should begin with a verb that shows your observable action and must include the measurable target of that action.

Objective Statements should:

- be specific
- have verifiable/measureable targets (specifications in engineering terms). Later, when you compare
 your objectives (targets) with your actual results, you will know whether you have reached your
 objective or to what extent.
- be realistic (not too ambitious) so that you can achieve them within the FYP period.
- be challenging enough so that you can learn and improve your engineering knowledge and skills by achieving them. This is the reason you should carefully think them through in the proposal stage.

Example Objective Statements

Objective 1: "To write and debug the code so that the camera can recognize the road features with an accuracy of X",

Objective 2: "To design and fabricate a visual motion sensor for the remote home security system that is able to accurately sense motion up to X meters.",

Objective 3: "To fabricate and calibrate the pressure sensor switch to...",

Objective 4: "To simulate the proposed amplifier design in SPICE to verify its feasibility".

Do NOT use the following examples: "to learn......", "to understand......", "to do a literature search/survey......", "to choose/identify/purchase components...." and alike. These show no observable action.

1.3 Literature Review of Existing Solutions (minimum 1 page)

Has anybody provided a solution to your problem before? The answer in most cases is yes, but the solution may not be perfect.

This section requires you to do a literature search. Find related works in this area, study those existing solutions or approaches, then summarize them here (using proper literature citations). What are the strengths and shortcomings of those solutions? Reference all sources that you have cited. (See REFERENCING in Part II of these guidelines.)

Briefly outline how your solution would address those drawbacks? What would be the distinguishing feature of your work in relation to existing solutions?

SECTION 2— METHODOLOGY

This section presents the details of your project, fully reports all work done to achieve your project objectives, and evaluates and discusses your final outcomes to show whether or to what extent you met your main objective and solved the problem you set out to solve.

2.1 Overview

2.1.1 Product/System Description

(minimum ½ page)

Using 2–3 paragraphs, give an overview of your proposed product/system/process; i.e., what is it and what does it do? Refer to the Model Final Report for an example.

If you are designing a hardware/software system, give details of the proposed components/function blocks of your system and their interactions, including the functions each proposed component/module serves, technical specifications, parameters and values.

If you are designing a simulation- or experiment-based project, outline your proposed process design, including what will be measured and how.

In addition to describing your design, you should justify any design choices you have made. In other words, explain why you have chosen a particular approach or component. What are its advantages over other competing approaches/components?

If you have made further design choices/changes since the progress report, such as new components, update the description accordingly.

2.1.2 System Block Diagram

Provide a block diagram that visualizes the system/design you described in Section 2.1.1, including all components/modules and their interactions. Your block diagram should be given a figure number, e.g., Figure 1, and a caption, e.g., "Smartphone-based Bluetooth blood pressure monitoring system" or "Simulation process for....". Refer to the Model Final Report for an example.

If you have made further design choices/changes since the proposal report, such as new components, update the diagram accordingly.

2.1.3 Components List

Include a table or list of the main components of your product (those included in your block diagram) and their required specifications. For a simulation- or experiment-based project, list parameters to be measured. (See Table 1)

Update the table to include any additions/changes to components/parameters since the proposal report.

Item*	Specifications/Model
Component Name	
Component Name	
Component Name	

^{*}List your components. Add rows as needed. Do not include consumables such as solder and chemicals.

2.1.4 ECE Knowledge

(minimum ½ page)

The ECE FYP aims at providing you with an opportunity to synthesize knowledge and practice techniques you have learned in various engineering courses in the ECE curriculum through a well-defined year-long project execution.

In this section, describe how knowledge and techniques from specific ECE courses (2000-level and above) will be applied to your project. State course codes and titles (e.g., ELEC2300 Computer Organization; ELEC3300 Introduction to Embedded Systems) and explain how knowledge and techniques from these ECE courses will be utilized in your project.

2.2. Objective Statement Execution

(minimum 9 pages)

In this section, you will report all of the work done on your project. This section should extend on the work presented in the progress report to give a detailed description of all of your work on the project and the final outcomes of that work. Your work must be sufficiently detailed so that it can be replicated in full and the same results achieved.

For each Objective Statement identified in Section 1.2.1:

- Give the Objective Statement an appropriate heading.
- Restate the objective in full.
- Provide a description and diagram (if relevant) that depicts the outcome of this Objective Statement. Include components/function blocks.
 - State the function each component serves, and the technical specifications, parameters and values. If you are designing a simulation- or experiment-based project, outline your proposed process, including what will be measured and how.
 - Justify (i.e., explain) your design decisions related to your choice of components or your approach to realizing this Objective Statement.
- Describe in detail all the work done to realize this Objective Statement. Break the work down into tasks, which may include designing, building, calculation, coding, testing and so on, and report the work done toward that task. Present each task as a separate sub-section. For group FYPs, each specific task should be taken charge of by (i.e., led by) only one group member.

For each task

- Identify the task
- Identify the group member in charge (for group projects only)
- Describe the work done to achieve this task, including any technical challenges you faced (see the next point). The description of your work should be supported by well explained

figures, e.g., photographs, diagrams, calculations, code, algorithms etc., and/or tables (note that graphics should be presented as figures).

- Technical challenges exist in any engineering project. What were the risks and technical challenges you met in the task, and what did you do to overcome them?
- If the task involves testing, describe what was tested and how. Report the results of your testing and explain what the results mean in terms of the success or failure of the task.
- Include <u>testing of the final outcome/s of this Objective Statement</u> (if relevant) as a separate task. What was tested and how? Report the results of your testing (this may be a statement, table of results, diagram, photographs etc.). Explain your results and what the figure/s or table/s, if any, are showing the reader.
- For the final outcome/s of this Objective Statement (as above), include a sub-section to <u>evaluate</u> the outcome/s with reference to your Objective Statement, i.e., compare your actual results with your expected results. Discuss whether or not you achieved your Objective Statement. In your discussion, report on whether a technical challenge you faced prevented you from achieving this objective or achieving it to its full extent.

2.3 Main Objective Evaluation & Discussion

(minimum 1 page)

Now that you have completed all of your Objective Statements and presented your final results, you will need to evaluate whether or to what extent you have met your Main Objective, as outlined in Section 1.4.1.

- Restate your main objective and the problem you aimed to solve.
- Summarize your main results from Section 2.2. Analyze your results by comparing them to your Main Objective. Consider whether or to what extent your results show that your final solution (product, system or other deliverable) fulfils your Main Objective. If your results have limitations, discuss how/why.
- If possible, compare your results with those of benchmark systems from your literature review. Have you met or exceeded their results? If not, why not? Have you solved the problem that your project aims to solve?
- Give a final assessment of the outcomes of your project and justify your results. Highlight the
 importance and/or relevance of your work. Discuss what was successful in your project and what
 wasn't. Explain why you think you succeeded/failed. Consider what you could have done differently
 to improve your results or make your work more relevant. (Avoid writing this in a reflective or
 personal style. Keep your discussion technical.)

SECTION 3—CONCLUSION (approx. 1/2 page)

In this final section, you should briefly restate:

- the objectives of the project,
- the methodology you used, and
- the main results.

State what further work could be done in relation to the project in future.

REFERENCES

Begin this section on a new page.

List all reference sources cited in the body of your report. Use IEEE style. Begin this list on a new page. See details in Part 2—Grading—Referencing.

APPENDICES

Begin this section on a new page.

Appendix A — Final Project Schedule

Update the table in this section to reflect any changes to the timeline and organization of your project since you wrote your progress report.

Include a Gantt chart for the entire project (note that this is a table and therefore requires a table number and heading). List all Objective Statements (from section 1.2.1/2.2) and the tasks to realize each Objective Statement (from section 2.2) and mark their intended start dates and durations (use weeks for the timescale). Write the names of the objectives and tasks in the table; i.e., do not write "Objective Statement 1" or "Task 1". Make sure that the timeline for each Objective Statement and those of its tasks correspond. For group FYPs, include a column indicating which group member is responsible for each task. **Use the table layout given on the next page.** Your Gantt chart should be presented in landscape for easier visualization. Refer to the Model Final Report for an example of a completed project schedule.

Table 2. Project Schedule

	Table 2. Project Scriedule																	
Objective Statements	Task	Group Member in charge	WK1 Date	WK2 Date	WK3 Date	WK4 Date	WK5 Date	WK6 Date	WK7 Date	WK8 Date	WK9 Date	WK10 Date	WK11 Date	WK12 Date	Wk 13 Date	Wk 14 Date	Wk 15 Date	WK1 Date
Objective Statement 1 Name (e.g., Road Recognition Coding for the Camera)																		
	Obj. 1 Task 1 Name (e.g., Install camera and coding software)																	
	Obj. 1 Task 2 Name																	
	Obj. 2 Task 3 Name																	
Objective Statement 2 Name																		
	Obj. 2 Task 1 Name																	
	Obj. 2 Task 2 Name																	
	Obj. 2 Task 3 Name																	
	Obj. 2 Task 4 Name																	
Objective Statement 3 Name																		
	Obj. 3 Task 1 Name																	

Februrary 2022

Appendix B — Budget

Begin this sub-section on a new page.

Include a table that lists the final actual cost of your components, materials and significant equipment expenses. Include a total cost. If all components, materials and equipment are available from HKUST at no cost, then state so.

Table 3. Budget

Items*	Cost
Component A	\$100
Component B	\$250
Material X	\$550
TOTAL	\$900

^{*}Write down each of your components and corresponding expected cost. Add more rows if you have more components.

Appendix C—Meeting Minutes

Begin this sub-section on a new page.

Include the minutes (i.e., notes taken) of group meetings and meetings with your supervisor. Minutes should be taken at all meetings as a record of what was discussed and should clearly list Action Items with due dates and group members assigned. They will help all group members to keep track of the work being done, what work is planned and who is responsible for it. Add new minutes for meetings conducted since the progress report.

To write the minutes, list the date, time, location and attendees of the meeting. Then, in point form, summarize your discussions and decisions made in the meeting with their justifications. In the minutes, you must:

- Follow up on Action Items from previous meeting (fill in Table 1 accordingly; see below).
- Verify those items are successfully completed.
- Briefly discuss those items not overdue yet and still in progress.
- Discuss mainly the items incomplete or partially completed and the challenges behind. Seek potential solutions.
- Discuss contingency plans and anticipate challenges.

Include two tables: Table 1, which lists the status of the Action Items from the previous meeting, and Table 2, which lists the Action Items to be completed before the next meeting. (See the example minutes below for the format of these tables.) All meeting minutes must contain Table 1 and Table 2 except for the minutes of the 1st meeting, which will contain only Table 2.

Example Minutes

Date: 1/11/2020 Time: 12pm

Location: HKUST, Room X

Attendees: Group Members A, B & C

Absent: Group Member D

Minutes taken by: Group Member B

- Group Member C is working on....but he has found a problem in....He is researching a solution and will aim to complete the work by November 10th.
- Group Member B is now making good progress with Specific Task 1 of Objective Statement 2 since Group Member A joined her. They aim to finish the task by November 15th. Group Member B will next move on to Specific Task 3 of.....
- Professor X has suggested that.....Group Member A will follow up with Professor X to.....

•

Table 1. Action Items from Previous Meeting

Action Item to be completed	By when	By whom	Status
Specific Task 1 of Objective Statement 1	Oct 7 th	Member A	Completed
Specific Task 1 of Objective Statement 2	Oct 12 th	Member B	70% complete due to
	Oct 22 nd	Member C	In progress (not overdue yet)

Add more rows if needed

Table 2. Action Items for Next Meeting

Action Item to be completed	By when	By whom
Specific Task 2 of Objective Statement 1	Nov 10 th	Member C
Specific Task 1 of Objective Statement 2 (70% complete from Table 1)	Nov 15 th	Members A & B
	Nov 20 th	Member B

Add more rows if needed

Next Meeting: Date/time/location

Appendix D — **Group Members' Contributions** (for groups)

Begin this sub-section on a new page.

Each member of the group must write a one-page summary of his or her individual contribution to the project. It should discuss the work the group member has been responsible for or assisted with during the project period and its relevance to the overall project. The details of this work should be presented in the Methodology section of your final report. No new information should be presented here. However, the discussions in this section should include enough technical detail for the supervisor to assess each group member's specific contribution and their understanding of the project.

Ensure that each one-page summary is headed with the name of the author.

Appendix E – Deviation(s) from the proposal and progress report and supporting reason(s) (if any)

Begin this sub-section on a new page.

List any deviation(s) from the progress report and provide the reason(s) for the deviation(s).

Appendix F, G, etc. (as necessary, beginning on separate pages)

Begin each of these sub-sections on a new page.

GUIDELINES PART II—PROGRESS REPORT REQUIREMENTS

SUBMISSION

Reports must be submitted to the department on or before the stipulated due date.

Check FYP website for the submission procedures.

Note that your report will be checked by the "Turnitin" System (www.turnitin.com)—The system highlights the parts that can be found on the Internet and calculates a percentage of similarity. Your supervisor will check the statistics provided by the system and decide whether your report has plagiarized other works. Reports containing plagiarized text will be referred to the department for investigation and will be penalized accordingly, including failure of the FYP.

Consult your supervisor well before the submission deadline and take account of his or her comments before finalizing the report.

Communication Tutors—The Communication Tutors in the department are available to help you with the presentation of your written work.

If you would like help with your proposal, contact your assigned Communication Tutor either by email or by calling into their new office in Room 2395 well before the submission deadline.

Please note, after submission you will be required to meet with your assigned communication tutor to discuss your proposal and any improvements that can be made toward writing your progress report. You will be contacted by email about arrangements for this meeting.

GRADING

The report must meet the following conditions:

Length of the Report

A recommended page minimum is suggested for each sub-section in Section 1—Introduction and Section 2—Methodology of your report. There is no specific page limit for subsequent sections as each project must be the length necessary to communicate your project work clearly. Avoid using excessive, irrelevant materials or an excessive number of pictures, particularly photographs, to extend the length of your report. Unnecessary use of blank spaces and pictures are easily noticeable and will cause a grade reduction.

Please note that the final grade is NOT based on the length of the report. The final grade is based on Objective Statements (1) whether they are clearly defined, specific, realist, and measurable and (2) whether they have been met by the end of the project.

REFERENCING

All sources of information used in the report must be cited. <u>Plagiarism</u> refers to the direct quoting of other people's work or the using of others' ideas without appropriate acknowledgement. Be very careful about excessive rephrasing or excessive quoting from other sources. Reports suspected of containing plagiarized material, including unreferenced diagrams, will be referred to the department for investigation and will be penalized accordingly, including <u>failure of the FYP</u>.

Referencing should follow the IEEE style: Use a sequential numbering system, place the number (i.e., [1], [2], [3]) in the text of the report in the same number order as in the list of References. Write the number ([1] etc.) and then the full reference as follows. (Please note that the examples below are for illustration only and your references should be listed in number order and not grouped by type.)

A book—

Name of author(s), name of book (italics), place where published, name of publisher, date (year); for example: [1] J. Brown, *Solid-State Circuits*, New York: Harper & Row, 1998.

A chapter in a book—

Name of author(s), name of chapter, name of book (italics), place where published, name of publisher, date, page numbers; for example:

[2] J. Brown, "On the uniform EDC bit precision and clip level computation for a Gaussian signal", *Gaussian Signals*, New York: Harper & Row, 1998.

An article in a journal—

Name of author(s), name of article, name of journal (italics), vol. no., page numbers, date (Month, year); for example:

[3] C.E. Landwehr, A.R. Bull, J.P. McDermott, and W.C. Choi, "A taxonomy of computer program security flaws", *ACM Computer Survey*, Vol.16, No. 10, pp. 613-615, 1973.

Off the web-

[4] http://www.xyz.com/xyz_user/exact_page.htm/

Include the date of access

A paper at a conference—

Name of author(s), name of paper (italics), where presented, page number, date; for example:

[5] G. D. Forney and A. Vardy, "Generalized minimum distance decoding of Euclidean space codes and lattices", *Proc. IEEE Int. Symp. Information Theory* (ISIT'96), Haifa, Israel, June 1996, pp. 288-293.

A Final Report by students in a previous year—

Name of author(s), name of publication (italics), name of university, year; for example:

[6] J. Brown, "Animated Graphics", Final Year Project Report, HKUST, 1998.

Lecture notes—

Title of topics, course number, course name, name of university, year; for example:

[7] "Communication Networks", ELEC214: Communication Systems, HKUST, 1999

CLARITY AND ORGANIZATION

- The report must be logically organized.
- Make sure you correctly number the pages, chapters, and the various sections within the chapters. (Carelessness will be penalized by deduction of half a grade.)
- There must be a clear statement of the project objectives, the proposed solution to the engineering problem, and the design specifications.
- Any pictures used MUST illustrate or further clarify a concept introduced in the text. DO NOT use pictures simply because they look good or they lengthen the report.
- Writing must be coherent and the quality of the written English must be acceptable.

TECHNICAL CONTENT

- The work proposed in the report must be relevant and technically challenging.
- The report should show that the student is motivated to seek viable and inspiring solutions to the problems.