

## **Assessment Rubric 2024-25**

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

### **Instructions:**

FYP faculty advisor evaluates each student individually in a FYP team.

FYP readers evaluate each FYP team.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Proposal Report						
	Project objective formulation, methodology to be followed, background	60%	The objectives are well defined and prioritized. All relevant information and constraints are obtained and accurately analyzed. Decision and design recommendation are well supported by the information.	All major objectives are identified. Sufficient information is obtained. Appropriate analyses are selected. Decision and design recommendation are reasonable and mostly supported by the information.	Most major objectives are identified but one or two minor ones are missing or priorities are not established. Most constraints are identified; some are not adequately addressed or accurately analyzed. Decision and design recommendation is reasonable.	Many major objectives are not identified. Information is collected but without any analysis. Only one solution is considered or other solutions were ignored or incompletely analyzed. Many constraints and criteria were ignored.
	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.
	Planning of future work	10%	Complete and well analyzed task list. Detailed well-around plan of future work. Reasonable timing and labor allocation.	Well-defined task list. Good plan of future work. Practical timing and labor allocation.	A possibly incomplete task list without priority. Plan of future work but not well justified. Time and labor allocation is not well thought.	No clear task list. Future work is not well considered. No time and labor allocation.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Progress Report						
	Work completed	60%	Progress exceeds expectations with respect to plan. Highly detailed discussions on milestones completed.	Progress is highly satisfactory with respect to plan. Detailed discussions on milestones completed.	Progress is mostly satisfactory with respect to plan. Some discussions on milestones completed.	Progress is not satisfactory with respect to plan. No discussions on milestones completed.
	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 initial system development, system requirement specification, system analysis specification & user interface specification are included here)	10%	Employ appropriate analytical tools and/or engineering methodologies. Clearly demonstrates mastery of several areas of the curriculum.	Employ appropriate analytical tools and/or engineering methodologies acquired in his course of study to the project at hand.	Employ some analytical tools and/or engineering methodologies acquired.	Does not make use of analytical tools and/or engineering methodologies relevant to the project

Program Outcome	Component	Percentage	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.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Oral Presentation						
	Project demonstration	40%	Present a fully functioning working prototype with several original/inventive elements. Show strong effort was made in breaking new ground and building excitement about the application. The demonstration techniques are imaginative and effective in conveying ideas to the audience.	Present a working prototype with support to all desired functions. Offer some new information or approach about the application. The demonstration techniques are effective in conveying main ideas.	Present a working prototype but some desired functions are not supported or malfunctioned. Simply shows how the application works. The demonstration only conveys main ideas.	The prototype is incomplete or does not work. Show little effort in building the application. The demonstration failed to capture the interest of the audience and/or is confusing in what was communicated.
	Delivery: Oral delivery, contact with audience, slides, timing	40%	Slides cover complete, accurate description of important outcomes. Effective use of charts, graphs, figures etc. Use of fluent English and confident. Hold attention by direct eye contact and nature hand gestures. Excellent timing and smooth transition among different parts.	Slides cover accurate description of most of important outcomes. Use of charts, graphs, figures etc. Fair use of English. Hold attention by consistent use of direct eye contact. Presentation runs with desired pace and finishes within allocated time.	Slides cover some of the outcomes. Limited use of charts, graphs, figures etc. Use of English with noticeable errors. A few eye contacts only. Presentation pace is not well planned but finished within allocated time.	Information is arranged in confused and unstructured way. Student lacks of confidence. Poor use of English. Does not attempt to look at audience at all. Read notes or looks at computer screen only. Presentation is too short or too long for the allocated time.
	Quality of answers	20%	Student has presented full knowledge of both problem and solution. Answers to questions are strengthened by rationalization and explanation.	Student has competent knowledge and is at ease with information. Can answer questions.	Student is uncomfortable with information. Seems novice and can answer basic questions only.	Student has no or very less knowledge of both problem and solution. Cannot answer questions.

## **Assessment Rubric 2023-24**

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

### **Instructions:**

FYT faculty advisor evaluates each student individually in a FYT team.

FYT readers evaluate each FYT team.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Proposal Report						
	Thesis objective formulation, methodology to be followed, background	60%	The objectives are well defined and prioritized. All relevant information and constraints are obtained and accurately analyzed. Decision and design recommendation are well supported by the information.	All major objectives are identified. Sufficient information is obtained. Appropriate analyses are selected. Decision and design recommendation are reasonable and mostly supported by the information.	Most major objectives are identified but one or two minor ones are missing or priorities are not established. Most constraints are identified; some are not adequately addressed or accurately analyzed. Decision and design recommendation is reasonable.	Many major objectives are not identified. Information is collected but without any analysis. Only one solution is considered or other solutions were ignored or incompletely analyzed. Many constraints and criteria were ignored.
	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.
	Planning of future work	10%	Complete and well analyzed task list. Detailed well-around plan of future work. Reasonable timing and labor allocation.	Well-defined task list. Good plan of future work. Practical timing and labor allocation.	A possibly incomplete task list without priority. Plan of future work but not well justified. Time and labor allocation is not well thought.	No clear task list. Future work is not well considered. No time and labor allocation.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Progress Report						
	Work completed	60%	Progress exceeds expectations with respect to plan. Highly detailed discussions on milestones completed.	Progress is highly satisfactory with respect to plan. Detailed discussions on milestones completed.	Progress is mostly satisfactory with respect to plan. Some discussions on milestones completed.	Progress is not satisfactory with respect to plan. No discussions on milestones completed.
	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 research approaches related to electronic and computer discipline (literature review, system/algorithm design, mathematical analysis, modeling, simulation, system prototyping are included here)	10%	Employ appropriate analytical tools and/or engineering methodologies. Clearly demonstrates mastery of several areas of the curriculum.	Employ appropriate analytical tools and/or engineering methodologies acquired in his course of study to the project at hand.	Employ some analytical tools and/or engineering methodologies acquired.	Does not make use of analytical tools and/or engineering methodologies relevant to the project



Program Outcome	Component	Percentage	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 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.

Program Outcome	Component	Percentage	Exemplary (A- to A+)	Competent (B- to B+)	Needs Work (C- to C+)	Unsatisfactory (D, F)
Thesis Defense						
	Result presentation	40%	Present a fully functioning working prototype with several original/inventive elements. Show strong effort was made in breaking new ground and building excitement about the application. The demonstration techniques are imaginative and effective in conveying ideas to the audience.	Present a working prototype with support to all desired functions. Offer some new information or approach about the application. The demonstration techniques are effective in conveying main ideas.	Present a working prototype but some desired functions are not supported or malfunctioned. Simply shows how the application works. The demonstration only conveys main ideas.	The prototype is incomplete or does not work. Show little effort in building the application. The demonstration failed to capture the interest of the audience and/or is confusing in what was communicated.
	Delivery: Oral delivery, contact with audience, slides, timing	40%	Slides cover complete, accurate description of important outcomes. Effective use of charts, graphs, figures etc. Use of fluent English and confident. Hold attention by direct eye contact and nature hand gestures. Excellent timing and smooth transition among different parts.	Slides cover accurate description of most of important outcomes. Use of charts, graphs, figures etc. Fair use of English. Hold attention by consistent use of direct eye contact. Presentation runs with desired pace and finishes within allocated time.	Slides cover some of the outcomes. Limited use of charts, graphs, figures etc. Use of English with noticeable errors. A few eye contacts only. Presentation pace is not well planned but finished within allocated time.	Information is arranged in confused and unstructured way. Student lacks of confidence. Poor use of English. Does not attempt to look at audience at all. Read notes or looks at computer screen only. Presentation is too short or too long for the allocated time.
	Quality of answers	20%	Student has presented full knowledge of both problem and solution. Answers to questions are strengthened by rationalization and explanation.	Student has competent knowledge and is at ease with information. Can answer questions.	Student is uncomfortable with information. Seems novice and can answer basic questions only.	Student has no or very less knowledge of both problem and solution. Cannot answer questions.

---

# Final Year Project (2023 – 2024)

## Progress Report Guidelines

ELEC/CPEG

---

Your progress report extends your earlier proposal report to include all work done on the project so far. The general structure of both reports is the same, so you can simply update/add content to the existing sections. To write the progress report, update the information presented in your proposal report as necessary, and under Section 2.2, present all work done so far on the project and identify future work still to be done. **Instructions about new content to add in the progress report are highlighted in red.** But note that other sections may also need to be updated to show progress/changes to your project.

**Plagiarism** 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 failure of the FYP.**

**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—PROGRESS 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

#### Section 1 Introduction

- 1.1 Background and Engineering Problem
- 1.2 Objectives
- 1.3 Literature Review of Existing Solutions

#### Section 2 Methodology—Progress

- 2.1 Overview
- 2.2 Objective Statement Execution — Progress

#### Section 3 Updated Project Plan

- 3.1 Project Schedule
- 3.2 Budget

#### References

#### Appendices

##### Appendix A – Meeting Minutes

##### Appendix B – Group Members' Contributions (for groups only)

##### Appendix C – Deviation(s) from the proposal and supporting reason(s)

## **REPORT CONTENT**

*(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)

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.

(Start your numbering from here)

## SECTION 1—INTRODUCTION

### 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., 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/measurable 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 — PROGRESS

This section presents an overview of your project, reports progress to achieve your project objectives and outlines the future work you will need to do to complete the project.

### 2.1 Overview

#### 2.1.1 System Description

(minimum ½ page)

Using 2–3 paragraphs, give an overview of your proposed system/process; i.e., what is it and what does it do?

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 proposal 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....”

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.

Table 1. List of Specifications

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 -- **Progress**

(minimum 9 pages)

In this section you will report all of the work done so far on your project and give your future plans to finish the project. Note that the structure of this section is similar to the proposal report, but the amount of information should be very different; you must give a detailed description of your work and the outcomes of that work. Your work must be sufficiently detailed so that it can be replicated in full and the same results achieved. Objectives or tasks that you have not yet worked on should be expressed as a plan (i.e., similar to what you wrote in your proposal report).

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 so far 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). Present evidence of your work, e.g., photographs, diagrams, calculations, tables, code, algorithms etc. (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?
  - Include testing of the final outcome/s of this Objective Statement (if relevant) as a task. What was tested and how? Report the results of your testing.
  - If you have not yet completed some of the tasks, describe each task and the plans for completing it (i.e., similar to the proposal report).
- If you have final results for this Objective Statement, include a sub-section to evaluate the outcomes with reference to your objectives and/or benchmarks. Have you successfully realized this Objective Statement? If not, why not?

## SECTION 3— **UPDATED PROJECT PLAN**

This section presents the organization and planning of your project. **Update the table in this section to reflect any changes to the timeline and organization of your project since you wrote your proposal report.**

### 3.1 Project Schedule—Gantt Chart

Include a Gantt chart for the entire project. 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.

### Table 2. Project Schedule

[illegible]

### 3.2 Budget

Include a table that lists the 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.

## REFERENCES

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 the appendices on a new page.

### Appendix A—Meeting Minutes

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 proposal 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 1<sup>st</sup> 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 10<sup>th</sup>.
- 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 15<sup>th</sup>. 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 <sup>th</sup>	Member A	Completed
Specific Task 1 of Objective Statement 2	Oct 12 <sup>th</sup>	Member B	70% complete due to ....
....	Oct 22 <sup>nd</sup>	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 <sup>th</sup>	Member C
Specific Task 1 of Objective Statement 2 (70% complete from Table 1)	Nov 15 <sup>th</sup>	Members A & B
....	Nov 20 <sup>th</sup>	Member B

Add more rows if needed

Next Meeting: Date/time/location

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

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 discussions 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 C – Deviation(s) from the proposal and supporting reason(s)** (if any)

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

**Appendix D, E, etc.** (as necessary)

## 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](http://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. **Plagiarism** 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 failure of the FYP.**

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](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.