

# **Write Project Title**



**Final Year Project Report**

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**In Partial Fulfillment**

**of the Requirement for the Degree of**

*Bachelor of Science in Computer Engineering*

**DEPARTMENT OF COMPUTER ENGINEERING**

**COMSATS UNIVERSITY ISLAMABAD,  
Lahore Campus**

**July 2026**

## ***Declaration***

*We, hereby declare that this project neither as a whole nor as a part there of has been copied out from any source. It is further declared that we have developed this project and the accompanied report entirely on the basis of our personal efforts made under the sincere guidance of our supervisor. No portion of the work presented in this report has been submitted in the support of any other degree or qualification of this or any other University or Institute of learning, if found we shall stand responsible.*

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**COMSATS UNIVERSITY ISLAMABAD,  
Lahore Campus**

**July 2026**

# **Write Project Title**

An Undergraduate Final Year Project Report submitted to the  
Department of  
**COMPUTER ENGINEERING**

As a Partial Fulfillment for the award of Degree

***Bachelor of Science in Computer Engineering***

*by*

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**July 2026**

# ***Final Approval***

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Degree of  
Bachelor of Science in Computer Engineering*

*by*

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*has been approved as partial fulfillment for the award of  
bachelor’s degree.*

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**COMSATS UNIVERSITY ISLAMABAD,  
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July 2026**

# ***Dedication***

Body text the font must be as follows (watch the word font bar at the top). Text Font is 12 (Times New Roman), justified.

## *Acknowledgements*

Body text the font must be as follows (watch the word font bar at the top). Text Font is 12 (Times New Roman), justified

**Student-1 Name**

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**Student-3 Name**

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# *List of Symbols, Abbreviations and Acronyms*

ROC.....	Region of Convergence
FAR .....	False Acceptance Rate
FRR .....	False Rejection Rate
ERR .....	Equal Error Rate

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# ***Abstract***

The abstract must briefly present the objective, methodology, key results, and conclusion of the study. It should be clear, concise, and self-contained, without the use of references, figures, tables, or equations. The **font must be Times New Roman**, with a **font size of 12 points** and **non-italic** font style. The text alignment may follow the document standard (recommended: justified). The **line spacing must be set to single (1.5)**. The **paragraph spacing before must be 0 points**, and the **paragraph spacing after must also be 6.0 points**. Consistent formatting must be maintained throughout the abstract. In addition, the main document must ensure that the **List of Acronyms**, **List of Figures**, and **List of Tables** are clearly included and properly mentioned in the **Table of Contents**.

This is second paragraph if needed.

# 1 Introduction

Instruction only (remove this para from the thesis): Please note that new chapter must start on odd page number, for example this chapter (chapter 1) starts at page number 1 ( 1 → ODD). You may need to add blank page stating: Page intentionally left blank. In printed bound copy, odd page numbers will be observed on the right side.

This is one of the most important components of the report. It should begin with a clear statement of what the project is about so that the nature and scope of the project can be understood by a lay reader. It should summarize everything you set out to achieve, provide a clear summary of the project's background, relevance and main contributions. The introduction should set the scene for the project and should provide the reader with a summary of the key things to look out for in the remainder of the report.

- The introduction itself should be largely non-technical.
- It is sometimes useful to state the main objectives of the project as part of the introduction.
- Concentrate on the big issues, e.g. the main questions (scientific or otherwise) that the project sets out to answer.

## 1.1 Historical Background

Explain historical perspective or background of the work if there is any...

## 1.2 Objectives and Limitations

The main goal of the project is to investigate ...

The research includes devising possible improvements in ...

The project includes development of hardware to ...

The project includes development of software to ...

The

## 1.3 Project Scope

The ...

## 1.4 Assumptions and Dependencies

The ...

## 1.5 Broader Impact (UN SDGs)

Instruction only (remove this para from the thesis): Write a detailed description on how your project lies under certain SDGs in the light of your objectives, solutions, and obtained results. Give examples where appropriate.

**Table 1. 1 SDGs in the light of your objectives**

SDGs	Included/ Not Included	If Included Inclusion Level as: Partial, Average, or Major	Goal (s) of Project that Lie in the SDG	How goal (s) meet the criteria for SDG	Additional Remarks/ Discussions
SDG 3: Good Health and Well-being					
SDG 4: Quality Education					
SDG 8: Decent Work and Economic Growth					
SDG 9: Industry, Innovation, and Infrastructure					
SDG 11: Sustainable Cities and Communities					
SDG 12: Responsible Consumption and Production					

## 1.6 Thesis Key Contributions

This thesis contributes to two aspects of ...

### 1.6.1 Thesis Outline

This thesis continues with the following chapters

Chapter 2 covers the background material and literature reviewed to understand the intricacies of ...

Chapter 3 gives model and simulation ...

Chapter 4 explains hardware and software implementation ...

Chapter 5 discusses and compares results with ...

Chapter 6 concludes ...

In the end, we briefly present the conclusions from this project and also the possible future improvements and additions for better design/implementation and investigation of <PROJECT NAME>.

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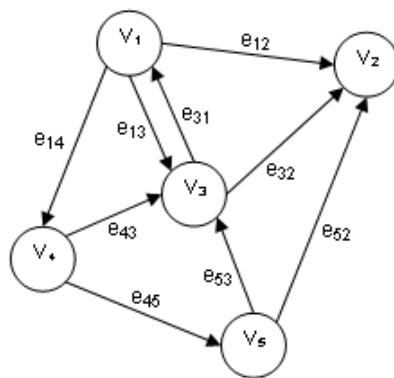
## 2 Literature Review

Instruction only (remove this para from the thesis): Please note that new chapter must start on odd page number, for example this chapter (chapter 2) starts at page number 5 ( 5 → ODD). You may need to add blank page stating: Page intentionally left blank. In printed bound copy, odd page numbers will be observed on the right side.

The background section of the report should set the project into context by relating it to existing published work which you read at the start of the project when your approach and methods were being considered. There are usually many ways of solving a given problem, and you shouldn't just pick one at random. Describe and evaluate as many alternative approaches as possible.

The background section can be included as part of the introduction but is usually better as a separate chapter, especially if the project involved significant amount of prior research. The published work may be in the form of research papers, articles, text books, technical manuals, or even existing software or hardware of which you have had hands-on experience. ....Use Mendeley Reference Management Software. [1].

**Please Note that** all references are managed using **Mendeley**, and the in-text numbers link to the full reference entries below. Clicking a number will take the reader directly to the corresponding reference.



**Figure 2. 1 An Example of inserting Figure into your project**

**Its WARNING: Avoid plagiarism ...** If you take another person's work as your own and do not cite your sources of information you are being dishonest; in other words you are cheating. When

referring to other pieces of work, cite the sources where they are referred to or used, rather than just listing them at the end.

**Table 2. 1 abc**


# **3 Modeling and Simulation**

Instruction only (remove this para from the thesis): Please note that new chapter must start on odd page number, for example this chapter (chapter 3) starts at page number 7 ( 7 → ODD). You may need to add blank page stating: Page intentionally left blank. In printed bound copy, odd page numbers will be observed on the right side.

## **3.1 Conceptual Framework**

(Explain the basic technique used to design the project. Elaborate the design philosophy and examples from previous works to justify its viability)

## **3.2 High Level Design**

- (Present the High-Level block diagram with inter dependencies, sequence and outputs. Map your objectives, deliverables on the block diagram to ensure the completeness of the project). Explain the block diagram.
- (Present a flow diagram linking all inputs, outputs and decision boxes). Explain the flow diagram)
- Performance target of the system in comparison with contemporary systems
- Calculation of performance parameters including efficiency, sensitivity and any other parameter

## **3.3 Subsystem Design**

- List the subsystems clearly as mentioned in the High-Level Design Block diagram and Flow chart
- Draw and explain each subsystem block diagram and flow chart if applicable
- Software Implementation on PC before implementation on Microcontroller
- Working of each subsystem before integration

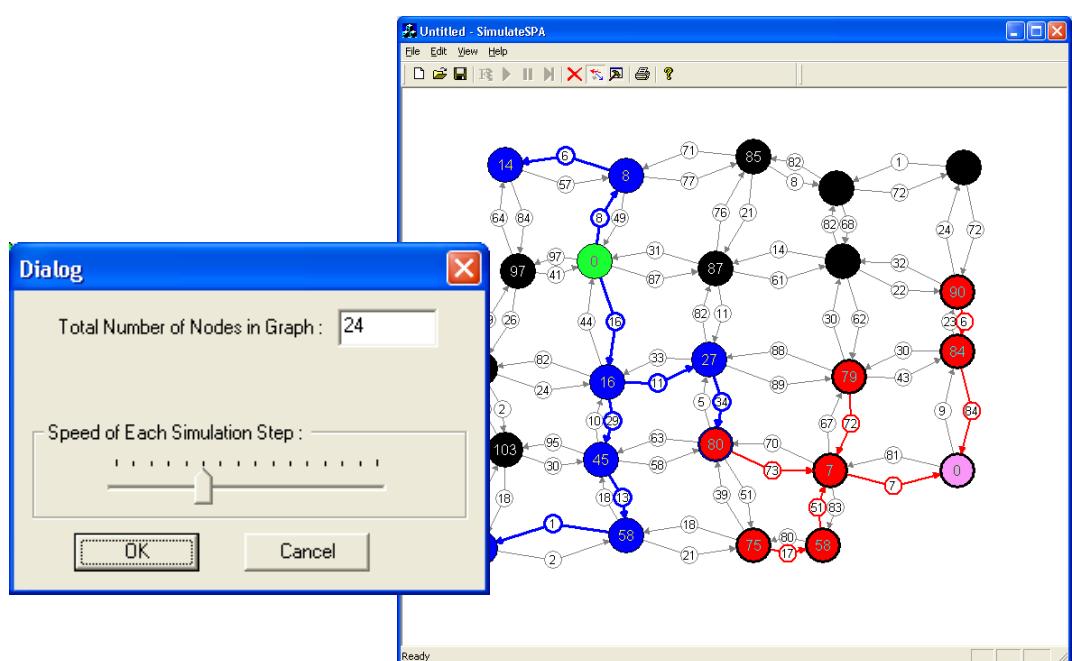
## **3.4 Low Level Design and Component**

### **Selection**

- List all the major components used in the project and group them in subsystems as defined in the previous section

- Propose a component and justify its selection for a particular function. Explain its working phenomena and identify multiple options available off the shelf. Describe its viability based on ease of sourcing and price.

A very basic prototype was developed . . . . .



**Figure 3. 1 Example Figure for Prototype Application**

**Table 3. 1 lmn**


The ...

The ...

The ...

## 3.5 Heading Level 2

The design of the intended product is explained graphically with the help of a diagram shown in Figure 3.1. The diagram explains the overall interactions of the modules and their placements.

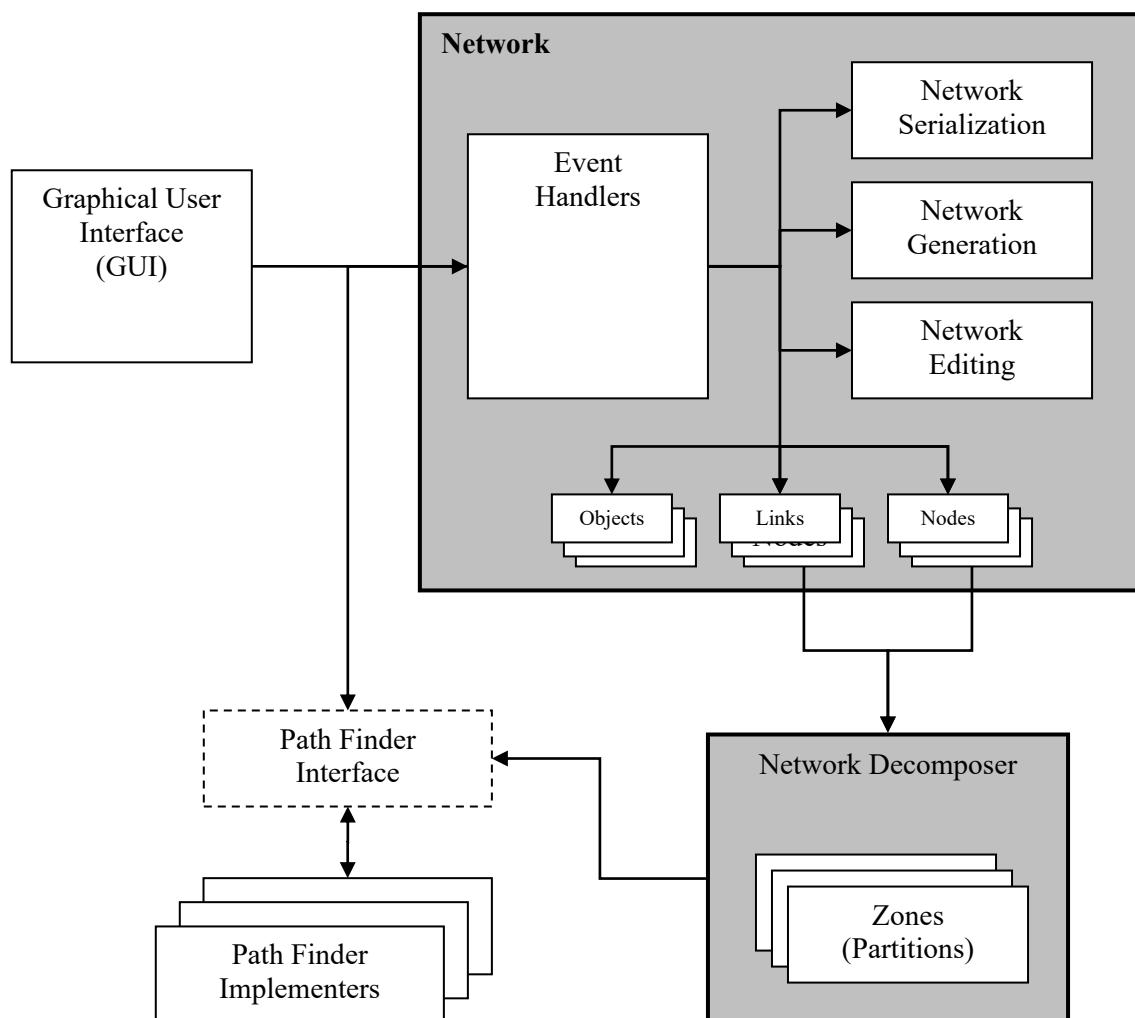


Figure 3. 2 Architecture Overview Diagram

### **3.5.1 Subheading Level 3**

Following are the modules constituting the product to be developed. Please note that we are documenting only the salient properties and methods of each module to keep the description simple and more readable.

# **4 Hardware/Software**

## **Implementation and Testing**

Instruction only (remove this para from the thesis): Please note that new chapter must start on odd page number, for example this chapter (chapter 4) starts at page number 11 ( 11 → ODD). You may need to add blank page stating: Page intentionally left blank. In printed bound copy, odd page numbers will be observed on the right side.

We have implemented the suggested design using ... ...

### **4.1 Development Stages**

Following were the

#### **4.1.1 Component 1**

We have implemented ...

#### **4.1.2 Component 2**

The ...

### **4.2 User Interface**

User Interface is an extremely important consideration for any project that requires human-machine interaction. However, this project doesn't require human machine interaction and therefore the product runs solely in the background without any user input. Besides this fact, we have introduced an option to display the current status, orientation, and power production from the requested solar panels. The user interface is.... ...

#### **4.2.1 UI Component 1**

This figure...

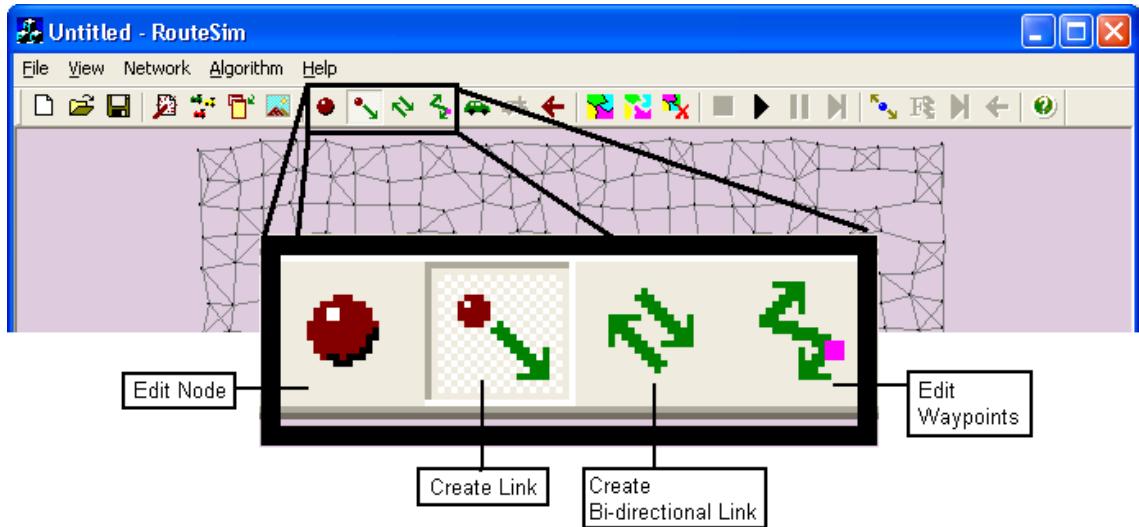


Figure 4. 1 Example Figure for User Interface

## 4.3 Evaluation

This chapter includes the results obtained through the implementation of the suggested design methodology and their detailed discussion ...

## 4.4 Unit Testing

## 4.5 Function Testing

### 4.5.1 Testing Requirements < A, B, C >

### 4.5.2 Testing Requirements < A, B, C >

## **5 Results and Discussion**

Following were the ...

### **5.1 Results of Development Stage 1 [Impact of ...]**

We have implemented ...

### **5.2 Results of Development Stage 2 [Effect of ...]**

We have ...

### **5.3 Comparison [Preferably separate or included in discussion]**

We have ...

### **5.4 Socio-Economic and Environmental Impact of the Project**

We have ...

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# **6 Conclusions and Future Work**

In this project, we have investigated and developed ... ... ...

There could be several improvements possible ... Some of the ideas for future development is mentioned below:

## **6.1 Idea 1**

...

## **6.2 Idea 2**

...

## **6.3 Idea 3**

...

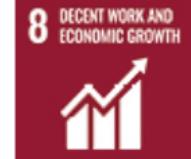
Future research actions on the Project to enhance its Social and Environmental Impact

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# **Appendixes**

## **Appendix A: Sustainable Development Goals Achievement**

(Write a detailed description on how your project lie under certain SDGs in the light of your objectives, solutions, and obtained results. Give examples where appropriate)

SDGs	Included/ Not Included	If Included Inclusion Level as: <b>Partial,</b> <b>Average,</b> or <b>Major</b>	Goal (s) of Project that Lie in the SDG	How goal (s) meet the criteria for SDG	Additional Remarks/ Discussions
 <b>3</b> GOOD HEALTH AND WELL-BEING					
 <b>4</b> QUALITY EDUCATION					
 <b>8</b> DECENT WORK AND ECONOMIC GROWTH					
 <b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE					

 <b>11</b> SUSTAINABLE CITIES AND COMMUNITIES					
 <b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION					

## **Appendix B: HDL or C Source Code**

## **Appendix C: Hardware Schematics**

## **Appendix D: List of Components**

## Appendix E: Project Timeline

DATE \_\_\_\_\_

PROJECT ID	_____	TOTAL NUMBER OF WEEKS IN PLAN	_____
------------	-------	-------------------------------------	-------

TITLE	_____
-------	-------

No.	STARTING WEEK	DESCRIPTION OF MILESTONE	DURATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Sum: \_\_\_\_\_

\* You can provide Gantt chart instead of filling in this form, if you like

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