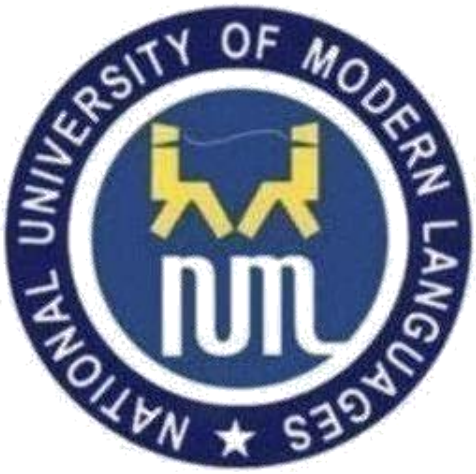
Final Year Project Guidelines



Department of Electrical Engineering

FACULTY OF ENGINEERING & CS

NATIONAL UNIVERSITY OF MODERN LANGUAGES
ISLAMABAD

Final Year Project (FYP)

1. Introduction

The Final Year Project (FYP) is a 6 credit hour mandatory part of the Bachelors Degree in Engineering. The aim of the project is to enable the students to practically implement all the theoretical knowledge learnt during the course. The FYP involves proposing, design, development and implementation of a real and substantial project related to software or electrical engineering. It provides an opportunity for the students to crystallize their acquired professional competence in the form of a demonstrable simulation or hardware product.

2. Project Coordinator

HoD Electrical Engineering will assign a Project Coordinator for each batch of students of BEEE program to manage proposal, progress and final presentations. Project Coordinator will maintain a record of project approval, supervisor allocation, progress reports and warning letters etc.

3. Project Proposal and Approval

A student is eligible to take up a project if he/she has secured a minimum CGPA of 2.0 and his pending failed courses in all semesters are upto two. Following steps are followed for the approval of project proposal;

The Project topic and Supervisor will be selected at the end of 6^{th} semester.

a. Students will work in a group of two to four with approval of HoD Engineering /Dean FE & CS depending upon the scope of the project. The students of different calibre and CGPA should be intermixed to share their learning skills. The groups will be approved by Project Coordinator.
b. Each group will search for project development domain and/or related project idea. Students will also consult faculty members for project selection.
c. Supervisor & Project Coordinator and HoD Engineering/Dean FE & CS will approve project idea. HoD Engineering and Project Coordinator will allocate a supervisor as per his skills/ Domain strength. Project supervision will be assigned evenly among all the faculty members. In general, a faculty member will supervise a maximum of 5 projects at a time.
d. A formal proposal of 4-5 pages prepared with the help of supervisor and countersigned by him/her will be submitted to the Project Coordinator, in the 1^{st} week of 7^{th} semester.
e. At the time of project proposal, a student can have only two pending subjects from previous semesters but none till 4^{th} semester. Students with more than two failed subjects up to 6^{th} semester will not be allowed to start the FYP. The department will remind students about this rule in 4^{th} and 5^{th} semester. Project proposal defense of FYP will be conducted in the 2^{nd} or 3^{rd} week of 7^{th} semester.
f. Panel for FYP proposal defense consist of Dean FE & CS, HoD Engineering & nominated faculty member by Dean FE &CS/HoD Engineering. (The practise followed is different about panel)The faculty members will be nominated on rotation basis. For grading of FYP proposal refer to Table1.
g. The project will be either approved with modifications or will be rejected. For approved projects, panel will complete "**Final Year Project Proposal Approval Certificate**" (ENGG-F1).

h. Final year project proposal report will be forwarded by Project Coordinator to HoD Engineering/Dean FE & CS within 3 days after the presentations.

4. Project Progress and Presentation

a. Project Supervisor will meet the project group members after every 2 weeks and maintain record of each member of a group. Record of newly assigned tasks will also be maintained by the Project Supervisor on "**Student Supervisor Meeting Records"** (ENGG-F2).
b. Project Coordinator will take monthly report from supervisors.
c. Students will submit three chapters of the final project report countersigned by the supervisor four weeks before start of final exam of 7th Semester (12th week of the semester).
d. A formal presentation on FYP progress will be taken in 3rd last week of 7th Semester. Dean FE & CS will approve a panel of 3 faculty members to evaluate the project progress in coordination with Project Coordinator. Panel members will be allocated on rotation basis and their skill set will also be considered to ensure diversity. For grading of project progress refer to Table1.
e. Completion of 40% of total project will be done in 7th semester.
f. Panel members will grade the continued work/ progress on **"FYP Progress Evaluation Form"** (ENGG-F3).

5. Final Project Presentations

a. At the time of final presentation, a student can have only one pending/failed course from previous semesters. In that case, his/her result will not be declared until he clears failed course(s).
b. A formal presentation will be scheduled three weeks before start of final exam of 8th Semester.
c. A list of students groups of 8th Semester appearing in FYP presentations will be forwarded by Project Coordinator to HoD Engineering & Dean FE & CS at least one week before the scheduled date for presentations.
d. The FYP code defence will be held one week before the final presentation date. Dean FE & CS/HoD will approve the panel of three faculty members for the evaluation of FYP code defence. Students will submit Final Project Report two week before the final presentation date. It should be countersigned by the supervisor.
e. Panel for FYP final defence will consist of Dean FE & CS, HoD Engineering & panel of three faculty members nominated faculty member by Dean FE & CS/ HoD Engineering. The members of the panel will be nominated on rotation basis.
f. A student will be responsible for late fees for extra semesters in case of delay in completion of his/her project, in light of exam rules.
g. The supervisor will encourage and help students to write a research paper on their project. It will have additional weightage in final grading.
h. Supervisor will also grade the student work on individual basis on **"Supervisor Evaluation Form"** (ENGG-F6).

5.1 Grading of FYP

Table1 Aggregated Total of All evaluation of FYP

Sr. No.	Final Year Project Milestones	Evaluation in Semester	Marks
1	Final year project proposal report & presentation	7th semester	Approved/Rejected
2	FYP Progress Report & Presentation	7th semester	40
3	**Final Project Defense** of FYP (Average of marks Assigned by each panel member of FYP Defense as per criteria given in Table 2)	8th semester	60
			100
4	Marks carried forward from Progress & Final Presentation	8th semester	70% of above 100
4	Supervisor	8th semester	30
	Total		**100**

Table1 shows the aggregated total of all evaluations of the Final year project.

The serial 1 and 2 of the Table1 consist of 40% of the evaluation that will be carried out in 7th semester. The serial 3 of Table1 consist of 60% of the evaluation that will be done in 8th semester.

Table2 Division of Marks Assigned by the Panel of Final Year Project Defense

Sr. No.	Division of 60 Marks Assigned by the panel	Marks
1	Theoretical Knowledge & Final presentation	22
2	Project Report	16
3	Demonstration of Software/Hardware	22
	Total	**60**

Table2 shows the division of the 60 marks that will be done by the nominated members of the faculty by Dean of Engg & CS/HoD Engg. in 8th semester.

a. Marks will be assigned on "**Final Presentation and Evaluation Form"** (ENGG-F8).
b. General criteria for evaluating the project will be as follows:
    i. Difficulty level, features, challenges.
    ii. Innovation, Originality and Code Understandability
    iii. Extent to which the goals have been achieved
    iv. Applications of the project
    v. Regular work/progress during semester and timely completion.
    vi. Project Report and Plagiarism

c. In case of simulation projects and projects having programming involved the students will have to defend the programming code. Project Coordinator, Supervisor and one faculty member will evaluate the work and assign marks on "**Code Evaluation Form**" (ENGG-F5). Students have to show the recommended changes after two weeks of final presentation. Project report will also be evaluated by the panel members.
d. Each student will be graded independently instead of entire group getting the same grade. A student may get an 'F' while his/her other project members get good grades.
e. Individual student will be evaluated on technical and programming basis. It helps to identify the sleeping partners with fake presentation tricks.

6. Report Submission Guidelines

6.1 Plagiarism Check

a. Students will submit the printed copy of project report, plagiarism form and soft copy of report to the project coordinator in the department, before 5 weeks of final defense of FYP.
b. The Project coordinator will check the reports for plagiarism.
c. After clearance (<19% plagiarism) the students will sign on plagiarism declaration form and Plagiarism certificate will be counter signed by the supervisor. The report will be thoroughly checked by the supervisor. Correct formatting as per SOP, technical contents and correctness of English will be ensured before submission to HoD Engineering.
d. HoD Engineering will counter check the report. The marked mistakes must be removed by the students and thoroughly checked by the supervisor and the project coordinator before resubmission to the HoD.
e. The HoD Engineering will forward final version (before binding) for signatures of the Dean FE & CS on "Final Approval Certificate" (ENGG-F7).

6.2 Hard Binding

a. The finally approved report will be hard bound in MAROON for Electrical Engineering. SILVER text will be embossed for and Electrical Engineering.
b. Degree title along with batch number, Project title and year of completion will be written on spine of the hard binding.

c. Three hard bound copies will be submitted to the Project Coordinator. These copies will be distributed to Department, Library and Supervisor after being signed by the HoD Engineering and Dean Faculty of Engineering and CS.
d. Certificate with original signatures will be attached in first hard bound copy and its photocopy will be attached in other two copies.
e. A CD will be attached at the end of hard binding containing certificate with original signatures. The CD should contain Proposal, Progress, Final Documentations along with Presentations, Project Source Code, Project Setup (if applicable), User manual (if applicable) and Supporting Tutorials (if applicable).

7. Results and Final Submission

a. Students will have to submit hard binding copies within one month of final presentation. In case of a delay 5% marks will be deducted. After two months group will have to present and defend the project again. (never followed)
b. Submission date of hard bound copies will be considered the completion date of the project report.
c. Final result/grade will only be declared after receiving three hard copies of report and one CD.
d. A student has to complete the degree within the specified duration as per university rules.
e. A student not completing his/her project in 8^{th} semester will have to pay fee as per university rules for extended duration beyond 8^{th} semester.

8. Report Writing Instructions

8.1 Formatting

a. Use A4 size page with top, bottom, and right margin as one inch and left margin 1.25 inches. Strictly follow margins throughout the report. No blank spaces will be left on either side.
b. Use only one side of the page for printing.
c. Times New Roman font is recommended for all of the project report.
d. Chapter title should be in 18 pt size, bold.
e. Headings / sub headings should be from 16 pt size to 12 pt size in bold depending upon level of heading.
f. Body text should be in 12 pt size.
g. Body text should be justified on both right and left side.
h. A separator page containing the chapter (or appendix) number 18 pt size (bold) and chapter name in 22 pt size (bold) should be placed before start of each chapter (or appendix). This page should contain page number.
i. The sections should be numbered with chapter number e.g. 1.1, 1.2, and so on in the same font size and style as the section heading. The subsections should be numbered with the number of their parent sections e.g. 2.1.1, 2.1.2 and so on.
j. Only section numbers should be used/referred in the text. No bullets or other para number will be used.(marked here for supervisors information)
k. Figure and table: For caption use Times New Romans, size 10. Provide table title at the top and figure title below the figure. Figures and tables should be numbered with chapter number as prefix, such as, 2.1, 2.2, 2.3 etc.
l. Figures must be referred in the text before they appear in the report.
m. Figures and Tables should be referred with their number in text.
n. **References:** List all the books, journals, research articles, web sites you referred for the Project and place the list under Bibliography or References at end of your report. The list should be numbered. Insert the number of reference material that you learnt, copied, or referred with the

text in your report. For example a book on Java is placed at number 2 in your reference list and you are mentioning features of Java from that book in your report. You must insert [2] after writing the features of Java in your report. General reference like Wikipedia should not be used.

o. **Roman Numbering:** The first few pages from dedication to table of contents should be separately numbered in roman numbering as (i), (ii), (iii) and so on. The normal numbering (1, 2, 3, ….) will start from first page of chapter 1.

8.2 Report Contents & Sequence of Project Report Contents

The project report contents should be arranged to the order mentioned below.

a. **Title Page:** The title page should have name of project in 18 pt size (bold), monogram of university in 2 – 2.25" diameter, followed by developers name in 16 pt size (bold). Below it the phrase *Supervised by* and name of supervisor in similar format. The name of university with the year of completion should be in 14 pt size (capital letters) close to the bottom of page. Last line contains month and year of submission.

b. **Abstract:** The abstract should consist of three to four paragraphs. First paragraph will provide project overview. Also discuss about existing systems. Next paragraph should deal with project methodology explaining what has been done and how it has been done. In the last paragraph testing, validation and achievements should be discussed.

c. **Final Approval Certificate:** As per sample attached in Annex A.

d. **Declaration:** As per sample attached in Annex A.

e. **Plagiarism Certificate:** As per sample attached in Annex A.

f. **Turnitin Originality Certificate:** As per sample attached in Annex A.

g. Dedication (Optional): As per sample attached in Annex A.

h. Acknowledgement (Optional): As per sample attached in Annex A.

i. **Table of Contents:** The table of contents pages should not be numbered and the contents must start from page number 1. Any page(s) before table of contents should be numbered in Roman. The page numbers should match correctly to the actual contents in the final version of the report. Heading up to third level may be included in the table of contents as described in sample.

j. **List of Figures:** All the figures used in report are mentioned here according to their page numbers

k. **List of Tables:** All the tables used in report are mentioned here according to their page numbers

l. **Chapter 1 (Introduction):** First chapter is introduction to the report. Provide project overview, scope, application areas and features etc. It should also include need of the project to be developed and why the project was selected for development. Software and Hardware requirements for the development and deployment of project will be discussed. At the end, write detailed discussion on tools and technologies used for development and its worth in software industry. Last section will describe the organizational structure of the report.

m. **Chapter 2 (Background & Existing Work):** Carry out a detailed review of existing work/literature duly supported by references. Highlight reasons, selection criteria and features of your work. Clearly specify functional and non-functional requirements of your work.

n. **Chapter 3 (System Model / Proposed System):** System block diagram, methodology and list of components are described in this chapter.

o. **Chapter 4 (System Hardware & Software Design):** Provide complete details of working of your project in this chapter. You should explain things from "**Engineering viewpoint**". Tables, figures, flow charts and graphs should be used to clarify and support your written text and not otherwise. Useless photographs/screenshots (e.g. login screen) should not be used. All software and hardware details (design, circuit diagram, algorithms, mathematical formation and implementation etc.) should be included as per specific area of the project

p. **Chapter 5 (Testing, Results & Discussion):** It is the most important part of your work. You are responsible to test/ validate all your results/achievements in a scientific manner. Be specific and avoid using general terms. Achievements are briefly highlighted specifically as "very efficient or user friendly etc." Explain in detail your testing setup/arrangements and results. Remember that in scientific work 100% results are not expected or achieved.

q. **Chapter 6 (Conclusion & Future Work):** Here the complete project is briefly reviewed and compared with the proposed objectives. Achievements are briefly highlighted. Limitations / Claims / future recommendations extracted out of one year's work are to be given. Don't use generalized statements like "there is always room for improvements".

r. **Appendices:** Appendices should be appended at end of the project as Appendix – I, Appendix – II, and so on. There should be separate appendices for the material collected during system study (sample forms, sample reports, etc.), extra information (conversions tables, data dictionary, definitions of terms, or any material that would help in understanding some content of the report/thesis), and user manual of the system (never followed).

s. **Bibliography and References:** The list of books, articles and other sources should be listed at last page of report. All references must be used/cited in the text. All references should be written as per IEEE format. Also refer to paragraphs 8.1-o in this regard.

Please Note Carefully that

- The report should be written in a passive impersonal style
- Take exceptional care to spell correctly
- All diagrams must be neatly presented and should be computer generated (e.g. Microsoft Visio)
- Any information in the report that is directly quoted or paraphrased from a source must be cited
- Any reference material derived from the web must come from credible and documentable sources
- Wikipedia is NOT a credible reference
- All pages of the report must include the page number

ANNEX -A

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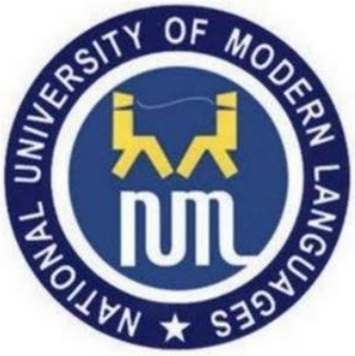
PROJECT NAME



Student Name 1

Student Name 2

Student Name 3

Student Name 4

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Do not use Ms/Mr/Sir , can use Dr./Prof./Engr.

Font style: Time New Roman, **Font size**: 14 Italic, &Center aligned

Supervised By

Supervisor Name

Submitted for the partial fulfillment of BE Electrical Engineering degree to the Faculty of Engineering & CS

NATIONAL UNIVERSITY OF MODERN LANGUAGES

ISLAMABAD

MAY, 2020

Font style: Time New Roman, **Font size**: 14 Bold, Center aligned, **Date** must be at last line of the page. It should be month of submission of your report.

ABSTRACT

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The abstract should consist of three to four paragraphs. First paragraph will provide project overview. Also discuss about existing systems. Next paragraph should deal with project methodology explaining what has been done and how it has been done. In the last paragraph testing, validation and achievements should be discussed.

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CERTIFICATE

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Dated: _____

Final Approval

It is certified that project report titled '**Online Sales by Windows Mobile Application Using GPRS and WIFI**' submitted by **Rizwan Farrukh** , **Sami-ul-haq** and **Haroon Iqbal** for the partial fulfillment of the requirement of **"Bachelors Degree in Electrical Engineering"** is approved.

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COMMITEE

Name of Dean
Dean Engineering & CS Signature: _____

Name of HoD Engg
HoD Engineering Signature: _____

Name
Head Project Committee Signature: _____

Supervisor Name
Supervisor Signature: _____

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DECLARATION

We hereby declare that our dissertation is entirely our work and genuine / original. We understand that in case of discovery of any PLAGIARISM at any stage, our group will be assigned an F (FAIL) grade and it may result in withdrawal of our Bachelor's degree.

Group Members	**Signature**
1.Rizwan Farrukh	_____
2.Sami Khan	_____
3. Haroon Iqbal	_____

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PLAGIARISM CERTIFICATE

This is to certify that the project entitled "**Online Sales by Windows Mobile Application using GPRS and WIFI**", which is being submitted here with for the award of the "**Degree of Bachelors" in "Electrical Engineering**". This is the result of the original work by **Rizwan Farrukh , Sami Khan** and **Haroon Iqbal** under my supervision and guidance. The work embodied in this project has not been done earlier for the basis of award of any degree or compatible certificate or similar title of this for any other diploma/examining body or university to the best of my knowledge and belief.

Turnitin Originality Report

Processed on 30-Jan-2014 00:14 PKT

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Date: 30/01/2014

Supervisor Name (Supervisor)

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TURNITIN ORIGINALITY REPORT

Online Sales by Windows Mobile Application Using GPRS and WIFI by **Rizwan Farrukh , Sami Khan** and **Haroon Iqbal**

From **Supervisor Name**

Processed on 30-Jan-2013 00:14 PKT

ID: 300502964

Word Count: 12948

Similarity Index

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Similarity by Source

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SOURCES:

1.2% match (student papers from 05/11/11)

Submitted to Higher Education Commission Pakistan on 2011-05-11

2.1% match (student papers from 06/05/12)

Submitted to Higher Education Commission Pakistan on 2012-06-05

3.1% match (Internet from 5/11/10)

http://linux.ucla.edu/~leonardr/req.doc

4. 1% match (student papers from 06/02/12)

Submitted to British University in Egypt on 2012-06-02

5. 1% match (Internet from 10/12/10)

http://www.se.rit.edu/~jact/documents/analyze/Software_Requirements_and_Specifications.pdf

6. 1% match (Internet from 7/16/10)
http://www.ecst.csuchico.edu/~srikanth/Coursework/OOAD/ElaborateVersion.doc

7. 1% match (student papers from 12/07/12)
Submitted to Higher Education Commission Pakistan on 2012-12-07

8. 1% match (Internet from 11/24/12)
http://www.softwaretopics.net/srs-document

9. 1% match (student papers from 09/27/12)
Submitted to Higher Education Commission Pakistan on 2012-09-27

10. 1% match (Internet from 11/29/11)
http://msdn.microsoft.com/en-us/library/ff402523(v=vs.92).aspx

11. 1% match (student papers from 04/17/10)
Submitted to Colorado Technical University Online on 2010-04-17

12. 1% match (student papers from 10/28/09)
Submitted to Informatics Education Limited on 2009-10-28

13. 1% match (student papers from 09/15/11)
Submitted to Higher Education Commission Pakistan on 2011-09-15

14. 1% match (Internet from 7/10/10)
http://www.ghriit.raisoni.net/download/MCA/project_manual.pdf

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ACKNOWLEDGMENT

(Optional)

Students may acknowledge the persons who supported them in the project work but should be very brief and precise.

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TABLE OF CONTENTS

4.1. Hardware Design

4.1.1 Description of each hardware component

4.1.2 Circuit Diagram (with explanation)

Many others

4.2. Software Design

4.2.1 Algorithm

4.2.2 Software Design & Tools

Many others

Chapter 5: Testing, Results & Discussion

5.1. Modular Testing

5.2. System Testing

5.3. Results & Discussion

Chapter 6: Conclusion & Future Work

6.1. Project Summary

6.2. Limitations of the Project

6.3. Conclusion

6.4. Future Work

References

Appendix I

Appendix II

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LIST OF FIGURES

Figure **Caption** **Page**

Captions should be exactly same as in text

Screen shots and photographs should be avoided

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LIST OF TABLES

Table **Caption** **Page**

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CHAPTER 1

INTRODUCTION

(Introduction to Project and Project Report)

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First chapter is introduction to the report. Provide project overview, scope, application areas and features etc. It should also include need of the project to be developed and why the project was selected for development. Software and Hardware requirements for the development and deployment of project will be discussed. At the end, write detailed discussion on tools and technologies used for development and its worth in software industry. Last section will describe the organizational structure of the report.

1.1 Introduction

Discuss the opening perspective of the problem area, the challenge in that area and refine the challenge into a concise form.

Introduction is mostly written for non-specialists so that they can get an overview of the project without technical details. It should provide a brief overview of the project aims and structure of the solution. It should also specify what unmet need or problem the FYP caters for and who needs it.

1.2 Problem statement

A problem statement is basically a statement that illustrates a clear vision and the overall method that will be used to solve the problem at hand. Usually used when doing research, a problem statement discusses any foreseeable tangible or intangible problems that the researcher may face throughout the course of the project.

Vision - what does the world look like if we solve the problem?

Issue Statement - an issue statement describes the problem and why solving the problem is important. This two-sentence statement simply describes the problems that you are encountering and specific issues related to the problem. It is not a "lack of a solution" statement. For example, our problem is that we don't have an ERP system.

Method - the process that will get followed to solve the problem.

You should be thinking about:

What is the problem or need?

Who has the problem or need?

Why is it important to solve?

What the outcome would be if the problem was not solved?

Where the problem is taking place?

When the problem needs to be fixed?

Why is it important for the problem to be fixed?

Is the problem short-term or will it continue into the future?

How many people are affected by this problem?

Would this research revise existing knowledge or practices? If so, how?

Once you answer the questions, you should have a pretty well rounded problem statement.

1.3 Aim & Objectives

The aim is your overall intention for the project. It is the reason why you are doing the research and signals where you hope to be by the end. The objectives are the specific steps you will take to get there.

When writing an aim, the convention is to use an infinitive verb – that is a to + action. This could be to measure, to investigate, to verify, to compare, to calculate…

A typical aim might read something like:

"The aim of this experiment was to determine how the elastic behaviour of a piece of bungee cord varied with applied load".

The objectives are the specific steps you will take to achieve your aim. These are usually formatted as a numbered list to make it easy to see the main steps of the project.

Objectives for the above aim might be:

To apply increasing load to a piece of bungee cord and measure the deflection.
To examine the relationship between spring constant and applied load.
To calculate the natural frequency from spring constant values, at various loads.
To compare an experimental value of natural frequency with a predicted value.
The objectives should be specific and measurable. Each objective should build on the previous one and as such guide the reader through the structure of the report. This way the reader will have a clear idea about how the rest of the report fits together.

Be aware that the objectives are not all of the steps of the project. For example "investigate the context of the problem" is not an objective, it is a necessary step in all projects.

For most projects, you should intend to have a single aim that covers the overall conclusion you wish to make from the work. For the objectives, it might be worth breaking the project down into stages and to write an objective to describe each stage. For example, in a data driven project, there might be collection, processing and analysis phase.

The aim and objective will give clear direction to the reader and allow them to understand the context and theory presented given the overall aim. This is especially relevant to the objectives, in that the theory will be set out using those objectives.

1.4 Proposed System

Briefly explain what the proposed system is and how it solves the problems mentioned in the problem statement.

1.5 Development Methodology

Briefly explain the techniques adopted to solve the problem.

1.6 Resource Requirement

It will include the hardware components and the software tools, compilers etc used/required in the project.

1.7 Social Benefits

Briefly explain the advantages of the project and the who are the beneficiaries of the project.

1.8 Report Layout

At the end of chapter, provide a summary of the report organization, chapter outlining what has been covered in this chapter and explain what comes in the following chapters.

CHAPTER 2

BACKGROUND & EXISTING WORK

(Literature Review, Existing Work)

Carry out a detailed review of existing work/literature duly supported by references. Highlight reasons, selection criteria and features of your work. Clearly specify functional and non-functional requirements of your work.

Provide an overview to the projects background knowledge without too much in detail (stick to the scope of the project). The background can refer to previous work referenced from journals, articles, newspapers, or any academic literature providing evidence that the proposed problem is significant and real problem worth solving.

If available, provide closely related work done within the project scope and the challenges or defects identified which can be considered as part of the new solution.

Describe why you worked on this project in light of the literature review?

CHAPTER 3

SYSTEM MODEL / PROPOSED SYSTEM

The system block diagram and method to implement the system from "**Engineering viewpoint**" and the components used are described in this chapter.

CHAPTER 4

SYSTEM HARDWARE & SOFTWARE DESIGN

This chapter describes the complete hardware components used in the system. Tables, figures, flow charts and graphs should be used to clarify and support your written text and not otherwise. Useless photographs/screenshots (e.g. login screen) should not be used. All software and hardware details (design, algorithms, mathematical formation and implementation etc.) should be included as per specific area of the project

CHAPTER 5

TESTING, RESULTS & DISCUSSION

It is the most important part of your work. You are responsible to test/ validate all your results/achievements in a scientific manner.

Describe how you demonstrated that the systems works as intended or not. Devise methods to test different hardware modules of the system independently and then integrated as a complete system. Also test the software embedded into the system taking care of normal and abnormal scenarios.

Include summaries of the results of all critical tests that were carried out. Describe the reasoning behind the tests to evaluate the results. Critically evaluate your results, describing its strengths and weaknesses. Evaluated in terms of compliance with the design constraints and standards. Make the best use of methods for expressing results in a useful and informative manner (e.g. graphs, charts, tables, etc.)

Be specific and avoid using general terms. Achievements are briefly highlighted specifically as “very efficient or user friendly etc.” Explain in detail your testing setup/arrangements and results. Remember that in scientific work 100% results are not expected or achieved.

CHAPTER 6

CONCLUSION AND FUTURE WORK

Here the complete project is briefly reviewed and compared with the proposed objectives or how the proposed solution has addressed the problem statement specified in the introduction section. Achievements are briefly highlighted. An overview is to be provided of what kind of evaluations were undertaken in order to prove that the solution really solves the problem with evidence on results findings. Limitations / Claims / future recommendations extracted out of one year's work are to be given. Don't use generalized statements like "there is always room for improvements".

APPENDICES

Appendices should be appended at end of the project as Appendix – I, Appendix – II, and so on. There should be separate appendices for the material collected during system study (sample forms, sample reports, etc.), extra information (conversions tables, data dictionary, definitions of terms, or any material that would help in understanding some content of the report/thesis), and user manual of the system.

REFRENCES

The list of books, articles and other sources should be listed at last page of report. All references must be used/cited in the text. All references should be written as per IEEE format. The general format is as follows:

Book

1. W.K. Chen. *Linear Networks and Systems*. Belmont, CA: Wadsworth, 1993, pp. 123-35.

Book Chapters

2. J.E. Bourne. "Synthetic structureof industrial plastics," *in Plastics*, 2nd ed., vol. 3. J.Peters, Ed. New York:McGraw-Hill, 1964,pp. 15-67.

Article in a Journal

3. G. Pevere. "Infrared Nation." *The International Journal of Infrared Design*, vol. 33, pp. 56-99, Jan. 1979.

Articles from Conference Proceedings (Published)

4. D.B. Payne and H.G. Gunhold. "Digital Sundials ang broadband technology," in *Proc.* IOOC-ECOC, 1986,PP. 557-998.

Papers Presented at Conferences (Published)

5. B. Brandli and M. Dick. "Engineering names and concepts," presented at the 2nd Int. Conf. Engineering Education, Frankfurt, Germany, 1999.

Note: For details refer to IEEE Citation Style Guide

Final Year Project Evaluation Form for Proposal Defense

NATIONAL UNIVERSITY OF MODERN LANGUAGES ***Faculty of Engineering &CS*** ***BE (Electrical Engineering) Batch No.*** ***Session: Session Name*** ***Date :***	

Project Title: ***Smart Track (Android Based Tracking & Auto Respond Application)***
Supervisor: ***Engr. Sumaira Nazir***

Roll#	***Student Name***	***CGPA***	***Supplies Status***	***Proposal Presentation Marks***	***Proposal Report Marks***	***Comments***

Evaluator Name _____ Signature _____

Student Supervisor Meeting Record Form

Student Name and Roll Number: _____

Project Title: _____

Supervisor Name: _____

Course: _____ Session: _____ Proposal Defense Date:_____

Sr. #	Date	Tasks Checked	Tasks Assigned	Remarks and Signatures

FYP Progress Evaluation Form

Project Title: _____

Name / Roll #	**Signature**	**Name / Roll #**	**Signature**
1.		3.	
2.		4.	

Course: _____ Session: _____ Submission Date _____

Supervisor Name _____ Signature _____

Presentation Date_____

_____

Project Coordinator

Marks 40	**Name of Student 1**	**Name of Student 2**	**Name of Student 3**	**Name of Student 4**	**Evaluator Name and Signature**
Modules (15)					
Report (10)					
Code (15)					
Modules (15)					
Report (10)					
Code (15)					
Modules (15)					
Report (10)					
Code (15)					
Total Marks					

Comments and Recommendations

FYP Progress Evaluation Form

Project Title: _____

Name / Roll #	**Signature**	**Name / Roll #**	**Signature**
1.		3.	
2.		4.	

Course: _____ Session: _____ Submission Date _____

Supervisor Name _____ Signature _____

Presentation Date_____

_____

Project Coordinator

Marks 60	**Name of Student 1**	**Name of Student 2**	**Name of Student 3**	**Name of Student 4**	**Evaluator Name and Signature**
Theoretical Knowledge & Presentation (22)					
Report (18)					
Demo (22)					

Theoretical Knowledge & Presentation (22)					
Report (18)					
Demo (22)					

Total Marks					

Comments and Recommendations

Final Year Project Defense Request Form

It is stated that I/We have completed final year project and therefore request you to arrange the final year project defense.

Project Title: _____

Name / Roll #	Signature	Name / Roll #	Signature
1.		3.	
2.		4.	

Course: _____ Session: _____ Submission Date _____

I hereby approve this project for final presentation to Project Evaluation Committee.

Supervisor Name_____ _____

Supervisor Signature

Presentation Date_____

_____

Project Coordinator

Final Year Project Evaluation Form for Code Defense

NATIONAL UNIVERSITY OF MODERN LANGUAGES ***Faculty of Engineering &CS*** ***BS (Software Engineering) Batch No.*** ***Session: Session Name*** ***Date :***	

Project Title : ***Smart Track (Android Based Tracking & Auto Respond Application)***
Supervisor : ***Engr. Sumaira Nazir***

Roll #	Student Name	Marks Obtained out of 100	Comments

Evaluator Name_____ _____

Evaluator Signature

Final Year Project Evaluation Form for Supervisor

NATIONAL UNIVERSITY OF MODERN LANGUAGES ***Faculty of Engineering & CS*** ***BS (Software Engineering) Batch No.*** ***Session: Session Name*** ***Date :***	

Project Title : ***Smart Track (Android Based Tracking & Auto Respond Application)***
Supervisor : ***Engr. Sumaira Nazir***

Roll #	Student Names	Total Marks (30)

Supervisor Signature: _____

Date: _____

Submission of Degree Project Report for Turnitin Verification

☐ **Email attachment** ☐ **Hard Copy** **Attempt:** ☐ **1st** ☐ **2nd** ☐ **3rd**

1.

Sr	Roll#	Student Name	Signature
1.			
2.			
3.			
4.			

2. Project Title: _____

3. Discipline: ☐ **BSSE** ☐ **BEEE**

4. Department: _____**Computer Science**_____

5. Faculty:_____**Engineering and Computer Science** _____

6. Email of Corresponding Student: _____

7. Supervisor's Name: _____

8. Supervisor's Email: _____

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_____ _____ _____

Supervisor Focal Person Project Coordinator

OBE based Evaluation Form

Student	Name	Registeration No.
S1	Talha Rafi	11021
S2	Awais Abbas	11029
S3	Hamza Ishtiaq	11047
S4	Amir Ejaz	11042

Project Id :_____ **Project Title**: Prosthetic Hand for Disabled Persons

Individual Evaluation

CLO	Performance Indicator	Description	Maximum Marks	S1	S2	S3	S4
1	Engineering Knowledge	Knowledge of basic concepts & ability to comprehend them	10				
5	Modern Tools Usage	Familiarity with the available hardware and software tools	10				
9	Individual/Team Effort	Individual Contributions/Usefulness for the team	10				
10	Communication and Presentation	Presentation Skills	10				
Total Marks (Individual)			**40**				

Group Evaluation

CLO	Performance Indicator	Description	Maximum Marks	Evaluation
2	Problem Identification and Analysis	Problem Identification/ Idea of objectives and expected outcomes	10	
3	Solutions Development	Idea/ Status of solution being developed	10	
4	Investigation	Literature Review, Simulation/Experiment	5	
6	Engineer and Society	Understanding project role in the context of an application to the society	5	
7	Environment and Sustainability	Impact of the developed solution on society	5	
8	Ethics	Commitment to professional ethics in the developed solution and report	5	
10	Communication and Presentation	Report Writing	10	
11	Project Management	Milestones timeline	5	
12	Lifelong Learning	Interest in pursuing lifelong learning	5	
Total Marks (Group)			60	
Remarks:				

Evaluator Name/Signature:_____ Date :_____