# PROJECT REPORT GUIDELINES

Following are the guidelines for the preparation of B.E. Pre  $Final(7^{th})$  & Final Semester( $8^{th}$ ) Report to be submitted to the Gujarat Technological University for the award of the B.E (CE/IT) degree.

### General guideline:

- 1. Remember that your project/training/dissertation report should be an honest report of the work done by you, content rather than size is important.
- 2. Take care about physical layout, diagrams, charts, etc. They should be properly numbered and referred to.
- 3. A good work can be "killed" by a badly written report. Take extreme care about language grammar, spelling and style. You are accustomed to take care of computer language while implementing; your report deserves the same care for English.
- 4. It will be good idea to submit the draft copy of the project/training/dissertation report to your guide or any other teacher in the department for his comments. This should be done well in advance, so that the reviewer has sufficient time for going through it in detail.
- 5. Remember that you will not be able to "disown" the report, make it something you will be proud of.
- 6. Don't wait for an inspiration to start writing the report, be ready to revise it several times. About halfway through the project is good starting time for the writing report.

**CONTENTS:** Following should be the order of contents for the report and should be strictly maintained.

- I. Cover Page ( see attachment)
- II. First Page ( see attachment)
- III. Candidate's Declaration
- IV. Industry Certificate ( from the officer under you worked, attached original copy)
- V. College/ Institute Certificate ( see attachment )
- **VI. Acknowledgement** (generally for your guide(s), various help received, discussion held, etc. Remember we stand on the shoulders of many people; here is the place to thank them)
- VII. Abstract/synopsis of work assigned or entrusted to you in clear language.
- VIII. Notations, Naming Convention and Abbreviations
- IX. List of Figures (if applicable)
  - X. List of Tables (if applicable)
  - **XI.** Index(Table of Contents) (Format given at the end)
- **XII.** Company profile: Organization, its activities, size, etc. The need of your work in organization, the existing system and any past attempts. What is expected in general from the new system?(Max 2 Page)
- **XIII. CHAPTERS (See The Details )**
- XIV. Appendices ( if applicable)
- XV. References
- XVI. Work Experience

### **DETAIL OF CHAPTERS**

### 1.0 Introduction

- 1.1 **Project Summary** Key to a good summary is the FIRST sentence, which MUST contain the most essential information that you wish to convey.
- 1.2 **Purpose**: Goals & Objectives
- 1.3 **Scope** (Scope what it can do and can't do)
- 1.4 **Technology and Literature Review** of Past Work/System

# 2.0 Project Management

## 2.1 Project Planning and scheduling

- 2.1.1 **Project Development Approach** (Process Paradigm) and
  - Justification
- 2.1.2 **Project Plan** including Milestones, Deliverables, Roles, Responsibilities and Dependencies
- 2.1.3 Schedule Representation

#### 2.2 Risk Management

- 2.2.1 **Risk Identification** (it is concerned with discovering possible risk to the project)
- 2.2.2 **Risk Analysis** (each identified risk is considered in turn and a judgment made about the probability and the seriousness of the risk)
- 2.2.3 **Risk Planning** (Identify strategies to manage the risk)

Note: Discuss the risks associated with your project or system only.

#### 2.3 Estimation

- 2.3.1 Effort Estimation
- 2.3.2 **Cost Analysis** (Total cost of the project including resources and labors. Labor cost should be broken down into the areas of design, analysis, prototype construction, software development, hardware-software integration, testing, design modifications and documentation. A cost analysis is NOT a tabulation of your expenditure)

# 3.0 System Requirements Study

- 3.1 **User Characteristics** (Type of users who is dealing with the system)
- 3.2 **Hardware and Software Requirements** (minimum requirements to run your system)
- 3.3 Constraints

(It includes Regulatory Policies, Hardware Limitations, Interfaces to Other Applications, Parallel Operations, Higher Order Language Requirements, Reliability Requirements, Criticality of the Application, Safety and Security Consideration, Assumptions and Dependencies or any other constraints related to your system)

# 4.0 System Analysis

- 4.1 Study of Current System
- 4.2 Problem and Weaknesses of Current System
- 4.3 Requirements of New System

(Mention all functional and non- functional including user and system requirements)

# 4.4 Feasibility Study

(In this section, does feasibility analysis by finding answers of the questions like Does the system contribute to the overall objectives of the organization? Can the system be implemented using the current technology and within the given cost and schedule constraints? Can the system be integrated with other systems which are already in place? etc;)

- 4.5 **Requirements Validation**(is concerned with showing that the requirements actually define the system which the customer wants)
- 4.6 Functions of System

4.6.1 Use Cases, event trace or scenario

- 4.7 Data Modeling
  - 4.7.1 Class Diagram/ E-R diagrams
  - 4.7.2 System Activity or Object interaction Diagram
  - 4.7.3 Data Dictionary
- 4.8 Functional and Behavioral Modeling
  - 4.8.1 Context Diagram
  - 4.8.2 Data Flow Diagram (0 and 1 level)
  - 4.8.3 Process Specification and Decision Table
  - 4.8.4 Control flow diagram
- 4.9 Main Modules Of New System
- 4.10 Selection Of Hardware and Software and Justification

Note: Prepare System Requirement Specification (SRS) after analysis phase. Choose appropriate guideline for your system.

- 5.0 System Design
  - 5.1 Database Design/Data Structure Design
    - 5.1.1 Mapping objects/classes to tables (if non OO languages)
    - 5.1.2 Tables and Relationship
    - 5.1.3 Logical Description Of Data
  - 5.2 System Procedural Design
    - 5.2.1 Designing Pseudo code or algorithm for Method or operations
    - 5.2.2 Flow chart or activity design
  - 5.3 Input/output and Interface Design
    - 5.3.1 Samples Of Forms, Reports and Interface
    - 5.3.2 Access Control and Security
    - 5.3.3 State-Transition Diagram
  - 5.4 System Architecture Design

(Transformation of DFD into structural chart/Hierarchical Charts which shows control hierarchy of modules or sub-systems)

NOTE: If your criteria do not match with above design then refer various CASE Tools for your application and find suitable design. Don't blindly select these designs. Do find appropriate Design Style suitable to your project work.

- 6.0 Implementation Planning and details
  - 6.1 Implementation Environment (Single vs Multiuser, GUI vs Non GUI)
  - 6.2 Program/Modules Specification
  - 6.3 Security Features
  - 6.4 Coding Standards
  - 6.5 Sample Coding
- 7.0 Testing (choose appropriate testing strategy or techniques suitable to your system)
  - 7.1 Testing Plan
  - 7.2 Testing Strategy
  - 7.3 Testing Methods
  - 7.4 Test Cases (Purpose, Required output, Expected Result)
- 8.0 Screen shots and User manual

10.0 Conclusion and Discussion

PAPER: Use A4 (210mm X 297mm) Royal Executive Bond Paper.

**MARGINS:** Margins for pages including the regular text should be as below:

Left: 1.2 Inches Right: 1.0 Inches Top: 1.0 Inch Bottom: 1.0 Inch

### FOLLOWING MUST BE STRICTLY FOLLOWED

<u>TOP-LEFT CORNER</u> : contains the project\_id of the student

TOP-RIGHT CORNER : contains the chapter heading

<u>BOTTOM-LEFT CORNER</u> : contains "CCET (CE/IT). Choose appro.dept. :

BOTTOM- RIGHT CORNER contains the page number

### **NUMBERING**

• All pages in the report except the cover pages and dedication page must be numbered. All the page numbers should be located at the BOTTOM RIGHT of the page.

- The page numbering starting from candidate's declaration up to the beginning of the chapters should be numbered in small roman letters, i.e. i, ii, ...
- The page numbering starting from the beginning of Chapter 1 up to the end of the report, should be numbered in Arabic numerals, i.e. 1, 2, 3,....

### PREPARATION OF CHAPTERS

Color: All the text including Tables should be Black prints. However, Graphs and Figures can

have color prints.

**Font:** 

Chapter Headings
Section Headings
Times New Roman 16pts, bold, UPPER CASE
Subsection Headings: Times New Roman 14 pts, bold, UPPER CASE
Times New Roman 12 pts, bold, Title Case

**Regular Text**: Times New Roman 12 pts, normal

**Special Text**: Times New Roman *Italics* 12 pts (for foot notes, symbols, quotes..)

# SPACING/ALIGNMENT

- Use 1.5 spacing between lines of regular text
- Use double spacing between Paragraphs, Chapter title and section Heading, Section heading and paragraphs, Table Title and Table, Figure Title and Figure
- Use single spacing between text corresponding to bullets, listing and quotes in the body of text.
- All paragraphs in the report are to be fully justified from the first line to the last line and should start from left without any hyphenation/indent. Text corresponding to bullets, listings and quotes in the main body of text should be indented.

# SECTION/SUBSECTION NUMBERING

Section numbering should be left justified using bold print with Arabic numerals and decimals.

Example: 1.1, 2.1, 1.2.1

# FIGURES, DIAGRAMS, TABLES:

Figures and Tables should follow immediately after/on immediate next page after they are referred to for the first time in the text. Figure headings should be given at the bottom of the figure. All figures and tables are to be central aligned on the page. Each drawing is to be numbered and referred to as Figures only. Diagram title should be similar to figure titles. Table heading should be given at the top of the table.

### **REFERENCES**

All the references cited inside the text should be documented under the heading "**REFERENCES**". All the references must be informative.

Example:

Single Author:

Aloysius J. A. (1998) *Data Analysis for Management*, Prentice Hall of India Pvt. Ltd., New Delhi.

Note: Arrange references in alphabetical order and number them in that order.

# **NUMBER OF COPIES:**

The student/group must submit 1 copy to the college and one CD (including report and presentation) to the institute for necessary evaluation

Copies of the candidates must be HARD BOUND.

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