

School of Computer Science and Engineering

Guidelines for Capstone Project Exams

1. Types of Reports for Different Semesters

There are two types of reports as follows:

1.1 Interim Project Report (IPR): The **Interim Project Report** of the project demonstrates the work completed so far. It is submitted at multiple exam stages to track and evaluate ongoing progress as follows:

7th Semester MTE Exam: Focuses on initial work, literature survey, problem definition, and early development. (Interim Project Report-I).

7th Semester ETE Exam: Includes further development, implementation progress, and preliminary results. (Interim Project Report-II).

8th Semester MTE Exam: Covers more advanced implementation, testing progress, and near-final results. (Interim Project Report-III).

1.2 Final Project Report (FPR): The FPR is the complete and finalized documentation of the project. It is submitted during the 8th Semester ETE Exam and includes all chapters, implementation details, testing, results, conclusions, and future scope. This report reflects the completed project in its entirety.

* Report format along-with the milestones is provided in [Annexure A](#) of this document.

2. Submission Requirements

2.1 Number of Copies:

Each project group must submit **one (1) hard copy** of the Interim Project Report (IPR) document. The copy should be **spiral-bound, free from errors, and signed by all group members.**

2.2 Approval:

Before submission, the document must be **checked and approved by the project guide.**

2.3 Submission Deadline:

The approved hard copy must be submitted to the **assigned project examiner/reviewer by the communicated deadline.**

2.4 Corrections (if required):

If the guide or examiner finds that the submitted document does not follow the required format or needs corrections, the group must **make the necessary changes and resubmit the corrected version on the next working days.**

3. Formatting Guidelines

3.1 Text Formatting within the Report:

- **Main Heading:** Font size 16, **Bold**
- **Subheading (e.g., 1.1):** Font size 14, **Bold**
- **Subtitle (e.g., 1.1.1):** Font size 12, **Bold**
- **Body Text / Script:** Font size 12

3.2 Figure Captions:

- Captions must be placed **below** each figure.
- Example: For the 4th figure in Chapter 3, the caption should be written as:
Figure 3.4 Title of Figure

3.3 Table Captions:

- Captions must be placed **above** each table.
- Example: For the 7th table in Chapter 3, the caption should be written as:
Table 3.7 Title of Table

3.4 Page Dimensions and Margins

- The Project Progress Report must be printed on **A4 size (297 mm × 210 mm)** spiral-bound sheets.
- Top & Bottom Margin: **25 mm (1 inch)**
- Left & Right Margin: **25 mm (1 inch)**

3.5 Page Numbering

- Page numbers should be placed at the **center of the bottom** of each page.
- Preliminary pages (Title Page, Table of Contents, List of Tables/Figures, Notations, Abbreviations, etc.) should be numbered using **lowercase Roman numerals**.

3.6 Numbering of Chapters, Sections, and Sub-sections

- Chapters, sections, and sub-sections must be numbered **using Arabic numerals only.**
- **Decimal notation** should be followed to indicate hierarchical structure within a chapter.
- **Example:** Sub-division 4 under Section 3 of Chapter 2 should be numbered as **2.3.4.**

3.7 Equation Numbering

- Equations appearing in each chapter must be numbered **sequentially**, with numbering starting afresh for **each chapter or appendix**.
- **Example:** The eighth equation in Chapter 2 should be written as **(2.8)**.
- While referring to this equation in the text, it should be cited as **Equation (2.8)**.

4. Structure of report at different milestones

Exam type and Milestone required	Report Status
7th Semester, MTE Exam (Interim Progress Report-1) <p>Milestones:</p> <p>1- Completion of Literature Review 2- The Introduction section and the Literature Review section of the research paper must be fully completed by this stage.</p>	1. Cover Page 2. Progress Approval Form from guide (Appendix-1) 3. Synopsis (Maximum 2-3 Pages) 4. Table of Contents along with page numbers 5. List of Figures 6. List of tables 7. List of Symbols, Abbreviations 8. Chapter 1: (Refer to Annexure C) 9. Chapter 2: (Refer to Annexure C) References
7th Semester, ETE Exam (Interim Progress Report-2) <p>Milestones:</p> <p>1- Completion of coding 2- Generation of primary results 3- Research paper communication.</p>	Add following: 10. Chapter 3: (Refer to Annexure C) 11. Chapter 4: (Refer to Annexure C) 12. Chapter 5: (Refer to Annexure C) 13. Chapter 6: (Refer to Annexure C) 14. Chapter 7: (Refer to Annexure C) Conclusion of work done References
8th Semester, MTE Exam (Interim Progress Report-3) <p>Milestones:</p> <p>1- Detailed result generation and compete analysis. 2- Research paper acceptance and registration. 3- First draft of the report.</p>	Add following: 15. Chapter 8: (Refer to Annexure C) 16. Chapter 9: (Refer to Annexure C) 17. 18. Conclusion of work done References (First draft of the report should be ready)
8th Semester, ETE Exam (Final Project Report) <p>Milestones:</p> <p>1- Final report with detailed result and format. 2- Research paper publication expected.</p>	Add following: 19. Chapter : (Refer to Annexure C) References (Final Project Report Must be ready)

5. General Guidelines for Students

1. **Adherence to Deadlines:** Students must strictly adhere to all deadlines communicated by the Project Coordinators and respective Project Guides. Failure to meet deadlines may adversely affect project evaluation and progress.
2. **Weekly Review Meetings:** Students are required to attend weekly review meetings with their assigned Project Guides. The guides will maintain a Project Guide Interaction Report (see Annexure D) to record weekly progress related to the project development and research paper activities.
3. **Online Mode Approval (NOC Holders):** Students who have obtained a No Objection Certificate (NOC) for appearing in online mode due to internship or placement commitments must formally inform their respective Project Guides and submit a copy of the NOC. Such students must mandatorily attend weekly review meetings with their guides in online mode.
4. **Progress Examinations (MTE/ETE):** All students are required to appear in all project progress examinations (MTE/ETE) in offline mode only (including NOC holder students), strictly as per the schedule released by the School/Department.



**(Annexure-A)
Sample Project Report Format
Interim Project Report-II**

on

<Title of Project>

**Submitted in partial fulfillment for the award of
BACHELOR OF TECHNOLOGY**

Degree

In

COMPUTER SCIENCE & ENGINEERING



2025-26

Under the Guidance of:

<Guide Name>

<Designation>

Submitted By:

<Student Name1 (Admission No.)>

<Student Name2 (Admission No.)>

SCHOOL OF COMPUTER SCIENCE & ENGINEERING

GALGOTIAS UNIVERSITY

January 2026

TABLE OF CONTENTS (from new page)

CHAPTER NO.	TITLE	PAGE NO.
	SYNOPSIS	iii
	LIST OF TABLES	ix
	LIST OF FIGURES	x
1.	INTRODUCTION	1
1.1	OVERVIEW OF THE STEGANOGRAPHY PROCESS	4
1.1.1	DIFFERENT TYPES OF STEGANOGRAPHY	5
1.1.2	USES OF STEGANOGRAPHY	7
1.1.3	STEGANOGRAPHY AND ENCRYPTION	9
1.1.4	LIMITATION	10
1.1.5	METHODS OF DIGITAL STEGANOGRAPHY	11
1.1.5.1	IMAGES AS CARRIERS	12
1.1.5.2	AUDIO FILE CARRIERS	12
1.2	MOTIVATION	13
2.	BACKGROUND AND RELATED WORK	14
2.1	TECHNIQUES FOR DATA HIDING	14
2.1.1	DATA HIDING IN STILL IMAGE	19
2.1.2	DATA HIDING IN AUDIO	21
2.1.3	PHASAE CODING	26
2.1.4	SPREAD SPECTRUM	26
2.1.5	ECHO DATA HIDING	27
2.2	AUDIO STEGANOGRAPHY	28
2.2.1	LSB BASED AUDI STEGANOGRAPHY	30

2.2.2 DATA HIDING USING BIT MODIFICATION	35
2.2.3 DATA HIDING BY TONE INSERTION	37
2.2.4 PHASE CODING	39

LIST OF TABLES (from new page)

CHAPTER NO.	TABLE NO.	TITLE	PAGE NO.
2	Table 2.1	Audio Stream with Encoded	32
4	Table 4.1	Guitar.wav	68
4	Table 4.2	Jhankar.wav	69
4	Table 4.3	Mohabatten.wav	70
4	Table 4.4	Pahalanasha.wav	70
4	Table 4.5	Mean Opinion Score MOS	72

LIST OF FIGURES (from new page)

CHAPTER NO.	TITLE	PAGE NO.
1	Figure 1.1: Categories of Steganography	6
2	Figure 2.1: Microsoft RIFF File Format	23
2	Figure 2.2: Encoding Message HEY in 16 bit CD Quality Audio steganography at LSB	31
2	Figure 2.3: Sampling of the size wave followed by Quantization Process	32
2	Figure 2.4: Hiding 1 bit of image in 16 bit quantized audio sample	33
2	Figure 2.5: Hiding 4 bit of Image in 16 bit Quantized audio signal	33
2	Figure 2.6 : Illustrated the original signal and encoded signal of phase coding Technique.	39

***(Now start chapters-each chapter will start from a new page)**

Chapter 1

.

.

Chaper 2

.

.

Conclusion and Future Scope

List of References / Bibliography (from new page)

1. Any work of other researchers used directly or indirectly in the Project Progress Report must be properly **cited at appropriate places** in the text.
2. Citations should follow a **standard reference format**, preferably ASCE, IEEE, or formats used by reputable international publishers such as Elsevier, Kluwer, Pergamon, etc.
3. Students should consult their **respective guides** for clarification on reference styles and formatting requirements.

Examples of Reference Formats

Electronic Documents / E-books

[1] L. Bass, P. Clements, and R. Kazman, *Software Architecture in Practice*, 2nd ed. Reading, MA: Addison Wesley, 2003. [E-book] Available: Safari e-book.

Article from an Online Encyclopedia

[2] D. Ince, "Acoustic coupler," in *A Dictionary of the Internet*. Oxford University Press, [online document], 2001. Available: Oxford Reference Online, <http://www.oxfordreference.com> [Accessed: May 24, 2007].

Journal Article Abstract (accessed from an online database)

[3] M. T. Kimour and D. Meslati, "Deriving objects from use cases in real-time embedded systems," *Information and Software Technology*, vol. 47, no. 8, p. 533, June 2005. [Abstract]. Available: ProQuest, <http://www.umi.com/proquest/>. [Accessed: Nov. 12, 2007].

Journal Article in a Scholarly Online Journal (free access)

[4] A. Altun, "Understanding hypertext in the context of reading on the web: Language learners' experience," *Current Issues in Education*, vol. 6, no. 12, July 2005. [Online serial]. Available: <http://cie.ed.asu.edu/volume6/number12/>. [Accessed: Dec. 2, 2007].

Newspaper Article from the Internet

[5] C. Wilson-Clark, "Computers ranked as key literacy," *The Atlanta Journal Constitution*, para. 3, March 29, 2007. [Online]. Available: <http://www.thewest.com.au>. [Accessed: Sept. 18, 2007].

Internet Documents

Professional Internet Site

[1] European Telecommunications Standards Institute, “Digital Video Broadcasting (DVB): Implementation guide for DVB terrestrial services; transmission aspects,” *European Telecommunications Standards Institute*, ETSI-TR-101, 2007. [Online]. Available: <http://www.etsi.org>. [Accessed: Nov. 12, 2007].

General Internet Site

[2] J. Gerald, “Sega Ends Production of Dreamcast,” *vnu.net.com*, para. 2, Jan. 31, 2007. [Online]. Available: <http://nli.vnu.net.com/news/1116995>. [Accessed: Sept. 12, 2007].



Annexure-B

Project Progress Report (To be submitted separately)



SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

PROJECT PROGRESS REPORT [MTE/ETE]

[FALL/WINTER Semester] 2025-2026

B. Tech., Project Details

Project ID:

Semester:

Project Title	
Progress of Project (in words)	
Research Paper Title	
Progress of Research Paper	
Suggestions for improvement by Guide	
Suggestions for improvement by Examiner	

Student Progress Details (Filled by Guide Only):

S. No	Name	Admission Number	No. Of time Came for Discussion	Performance of Student	Approval for Mid Term Review
1				<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Satisfactory	<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved
				<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Satisfactory	<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved
				<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Satisfactory	<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved

Supervisor Name & Signature with Date

Examiner's Name & Signature with Date

Note: All the information regarding performance (Except students' detail) must be filled by the respective Guide.

Annexure-C

Suggestive chapters of the report may be organized as follows

Chapter 1: Introduction

- Background of the problem
- Motivation and significance
- Problem statement
- Objectives of the project
- Scope and limitations
- Organization of the report

Chapter 2: Literature Review

- Review of existing systems / techniques
- Related research work
- Comparative analysis of prior studies
- Research gap identification

Chapter 3: Problem Definition and System Requirements

- Formal problem formulation
- Assumptions and constraints
- Functional requirements
- Non-functional requirements

Chapter 4: Proposed Methodology / System Architecture

- Overall system architecture
- Proposed model / algorithm
- Mathematical formulation (if any)
- Workflow / block diagram

Chapter 5: Implementation Details

- Tools and technologies used
- Dataset description
- Model training / algorithm implementation
- Module-wise implementation

Chapter 6: Experimental Setup and Results

- Experimental environment
- Performance evaluation metrics
- Results and observations
- Tables, graphs, and analysis

Chapter 7: Results Discussion and Validation

- Interpretation of results
- Comparison with existing approaches
- Validation and testing outcomes

Chapter 8: Conclusion and Future Scope

- Summary of work
- Key contributions

- Limitations
- Future enhancements

References

- Research papers
- Journals
- Books
- Online resources (IEEE format)



Annexure D

Project Progress Card

(To be maintained by Project Guide)

Project ID:	Project Title:	Group details	Student's Name	Admission No.	Mobile (Self)	Mobile (Parents)
		Group Member-1				
		Group Member-2				
		Group Member-3				
		Group Member-4				

(To be filled once in a week)									
S.No	Meeting Date	Previously Assigned work	Current Status (%)	GM1 (P/A)	GM2 (P/A)	GM3 (P/A)	GM4 (P/A)	Guide Remark (Work done so far)	Sign of the Guide
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

Departmental Project Coordinator
(To be signed before ETE evaluation)