**Major Project**
EG3205CT

**Year: III**                                                                **Total: 8 hours /week**
**Part: II**                                                                 **Lecture: … hours/week**
                                                                             **Tutorial: …  hour/week**
                                                                             **Practical: 8 hours/week**
                                                                             **Lab: … hours/week**

**Course description:**
The main aim of this course is to plan and complete project work, related with Computer Engineering under the supervision of an instructor or a supervisor.

**Course objectives:**
On completion of this course, the students will be able to:
1. Develop the ability to tackle individually a selected problem to a reasonable depth of understanding
2. Develop the ability to organize and produce a professional product using an engineering approach
3. Develop the ability to produce technical documentation to a high standard
4. Develop the ability to produce an analytical report which explains the work carried out by the students in the project and the final product they have developed

**Project Overview:**
1. Group formation (3-4 persons / group)
2. Project concept development
    a. Finding Project concept
    b. Scope of project
    c. Completion time
3. Proposal preparation and presentation-2 weeks
4. Mid-term defense (should complete literature review, methodology, project design and project progress report)-8 weeks after the proposal acceptance
5. Final defense (should deliver complete project and report)-4 weeks after mid-term defense
6. Project documentation (must follow project documentation guide line given by supervisor or the department)
7. Submission of hard cover project document to department-1 week after final defense

**Description of the Project Work:**
The work carried out must be a practical, problem-solving project. It should be a realistic project in the sense that the product should be useful practically as far as possible.

**The project should:**
• be intended to develop a Computer Engineering solution to a practical problem
• be carried out using an engineering approach
• emphasize design
• be carried out in a group (3-4 person/group)
• normally result in the production of a piece of software
• include technical documentation based on documentation guideline.
• be fully described from inception to completion in a written report produced to a good level of professional competence

**Procedure:**

1. A detailed project proposal to be submitted to the project supervisor for the approval of project work.
2. A mid-term progress report to be submitted to the supervisor. The supervisor must hold an oral presentation of about 10 minutes (including progress preview) to evaluate the mid-term progress of the project work.
3. A final written report will be submitted at the end of project work. There will be a final oral group presentation of about 15 minutes (including demonstration). The project coordinator, the supervisor and the external examiner nominated by the project coordinator will evaluate the submitted report as well as the presentation.

**Requirements for report writing:**
Font Name: Times New Roman
Top Margin: 1 inch
Left Margin: 1 inch
Right Margin: 1 inch
Bottom Margin: 1 inch
Gutter: 0.25 inch (left)
Header and Footer: 0.5 inch
Line Spacing: Single
Paragraph Spacing: 8 pt.
Font Size: 12 pt. (for normal text)
Follow following standard for headings

# 2. Heading1 (16pt, Bold)
## 2.1. Heading2 (14pt, Bold)
### 2.1.1. Heading3 (13pt, Bold)
#### 2.1.1.1. Heading4 (12pt, Bold)

**Arrangement of Contents in a report:**
The sequence of contents in a major project report is as follows

1. Cover Page
2. Title Page
3. Certificate of Approval
4. Acknowledgment
5. Executive Summary
- Executive Summary should be one-page synopsis of the project report and it must clearly give the overview of the project.
6. Table of Contents
- The table of contents should list all material following it as well as any material which precedes it.
7. List of Figures (if any)
- The list should use exactly the same captions as they appear below the figures in the text.
8. List of Tables (if any)
- The list should use exactly the same captions as they appear above the tables in the text.
9. List of Symbols (if any)
- The list should provide the detail of the symbols used in the report.
10. Abbreviations (if any)
- Abbreviation list should provide the details of the abbreviations used in the report in alphabetical order.

11. Main body
      11.1. Chapter 1: Project Overview (Introduction, Objectives and Scope, Project Features,
            Feasibility, System Requirement)
      11.2. Chapter 2: Literature Review
      11.3. Chapter 3: Design and Methodology (e.g. System Design, methods used, tools, data source)
      11.4. Chapter 4: Result and Analysis
      11.5. Chapter 5: Conclusion, Recommendation and Limitations
12. References
      - The reference should be in IEEE format.
13. Appendices (if any)

      - Appendices are provided to give supplementary information, which is included in the main text may serve as a distraction and cloud the central theme. Appendices should be numbered using Arabic numerals, e.g. Appendix 1, Appendix 2, etc. Tables and References appearing in appendices should be numbered and referred to appropriate places just as in the case of chapters.

**Page numbering**: The preliminary parts (Acknowledgement, Executive Summary, Table of Contents, List of symbols, List of figures, List of tables) are numbered in roman numerals (i, ii, etc.). The first page of the first chapter (Introduction) onwards will be numbered in Arabic numerals 1 2 3 etc. at the bottom.

**Figure and Table numbering:** It is useful and convenient to number the figures also chapter-wise. The figures in chapter 4 will be numbered as Figure 4.1: Figure Name. This helps you in assembling the figures and putting it in proper order. Similarly, the tables are also numbered as Table 4.1: Table Name. All figures and tables should have proper captions. Usually, the figure captions are written below the figure and table captions on top of the table.

**Evaluation Scheme:**
The project coordinator, the supervisor and the external examiner should evaluate the project work and presentation by the following criteria:

| S.N. | Topic | Marks Distribution |
|------|-------|--------------------|
| 1 | Proposal Defense | 20 |
| 2 | Mid-term progress report/presentation | 60 |
| 3 | Final project report/presentation | 120 (Project coordinator =10 supervisor =30 external examiner =80) |
| | **Total** | **200** |

**Detailed Evaluation Scheme**

| S.N. | Topic | Marks Distribution |
|------|-------|--------------------|
| 1 | Presentation skill | 20% |
| 2 | Team work | 10% |
| 3 | Understanding of project work and related theory | 20% |

| | | |
|---|---|---|
| 4 | Project demonstration | 20% |
| 5 | Project Applications | 10% |
| 6 | Documentation | 20% |
| | **Total** | **100%** |