

| CODE    | COURSE NAME | CATEGORY | L | T | P | CREDIT |
|---------|-------------|----------|---|---|---|--------|
| ITD 334 | MINIPROJECT | PWS      | 0 | 0 | 3 | 2      |

**Preamble:** This course is designed for enabling the students to apply the knowledge to address the real-world situations/problems and find solutions. The course is also intended to estimate the ability of the students in transforming theoretical knowledge studied as part of the curriculum so far in to a working model of a software system. The students are expected to design and develop a software/hardware project to innovatively solve a real-world problem.

**Prerequisites:** Subjects studied up to sixth semester.

**Course Outcomes:** After the completion of the course the student will be able to

| CO No. | Course Outcome (CO)   | Bloom's Category Level |
|--------|---|------------------------|
| CO 1   | Make use of acquired knowledge within the selected area of technology for project development.                    | Level 3: Apply         |
| CO 2   | Identify, discuss and justify the technical aspects and design aspects of the project with a systematic approach. | Level 3: Apply         |
| CO 3   | Interpret, improve and refine technical aspects for engineering projects.   | Level 3: Apply         |
| CO 4   | Associate with a team as an effective team player for the development of technical projects.                      | Level 3: Apply         |
| CO 5   | Report effectively the project related activities and findings.   | Level 2: Understand    |

#### Mapping of course outcomes with program outcomes

| POs<br>COs | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| CO 1       | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | -    | -     | -     | 3     |
| CO 2       | 3    | 3    | 3    | 3    | 3    | -    | 2    | 3    | -    | 3     | 2     | 3     |
| CO 3       | 3    | 3    | 3    | 3    | 3    | 2    | 3    | 3    | -    | 2     | 3     | 3     |
| CO 4       | 3    | 3    | 2    | 2    | -    | -    | -    | 3    | 3    | 3     | 3     | 3     |
| CO 5       | 3    | -    | -    | -    | 2    | -    | -    | 3    | 2    | 3     | 2     | 3     |

3/2/1: high/medium/low

#### Assessment Pattern

The End Semester Evaluation (ESE) will be conducted as an internal evaluation based on the product, the report and a viva- voce examination, conducted by a 3-member committee appointed by Head of the Department comprising HoD or a senior faculty member, academic coordinator for that program and project guide/coordinator. The Committee will be

evaluating the level of completion and demonstration of functionality/specifications, presentation, oral examination, working knowledge and involvement.

The Continuous Internal Evaluation (CIE) is conducted by evaluating the progress of the mini project through minimum of TWO reviews. At the time of the 1<sup>st</sup> review, students are supposed to propose a new system/design/idea, after completing a thorough literature study of the existing systems under their chosen area. In the 2<sup>nd</sup> review students are expected to highlight the implementation details of the proposed solution. The review committee should assess the extent to which the implementation reflects the proposed design. A well coded, assembled and completely functional product is the expected output at this stage. The final CIE mark is the average of 1<sup>st</sup> and 2<sup>nd</sup> review marks.

A zeroth review may be conducted before the beginning of the project to give a chance for the students to present their area of interest or problem domain or conduct open brain storming sessions for innovative ideas. Zeroth review will not be a part of the CIE evaluation process.

### Marks Distribution

| Total Marks | CIE | ESE |
|-------------|-----|-----|
| 150         | 75  | 75  |

### Continuous Internal Evaluation Pattern:

Attendance : 10 marks  
 Marks awarded by Guide : 15 marks  
 Project Report : 10 marks  
 Evaluation by the Committee : 40 Marks

**End Semester Examination Pattern:** The following guidelines should be followed regarding award of marks.

- (a) Demonstration : 50 Marks
- (b) Project report : 10 Marks
- (d) Viva voce : 15marks

### Course Plan

In this course, each group consisting of three/four members is expected to design and develop a moderately complex software/hardware system with practical applications. This should be a working model. The basic concept of product design may be taken into consideration.

Students should identify a topic of interest in consultation with Faculty-in-charge of miniproject/Advisor. Review the literature and gather information pertaining to the chosen topic. State the objectives and develop a methodology to achieve the objectives. Carryout the design/fabrication or develop codes/programs to achieve the objectives. Demonstrate the

novelty of the project through the results and outputs. The progress of the mini project is evaluated based on a minimum of two reviews.

The review committee may be constituted by the Head of the Department. A project report is required at the end of the semester. The product has to be demonstrated for its full design specifications. Innovative design concepts, reliability considerations, aesthetics/ergonomic aspects taken care of in the project shall be given due weight.

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