

## **INSTRUCTIONS FOR STUDENTS**

- ✓ Students have to select the area of the project and report to the concerned supervisor with the idea of project work they want to do before Review-1.
- ✓ A group of a minimum of 4 students shall form a batch (some batches may have 5 students), and this batch formation is done based on the last semester percentage/CGPA by the project coordinator.
- ✓ Students can select their supervisor based on the specialization of the faculty.
- ✓ During the synopsis presentation, the project can be accepted/rejected. This decision will be taken by PRC (Project Review Committee). If rejected, the group must come up with a new project idea within 7 days of the project being rejected.
- ✓ The group must report to their supervisor regularly and show/update them with the progress of their work.
- ✓ The group must maintain a record of their meetings along with remarks of their discussion and the signature of their supervisor. This record is to be shown in front of PRC at the time every review.
- ✓ A research paper may be presented /published in a conference/journal related to the project and need to be shown at the time of the final internal project presentation. (Paper Publishing is optional)

The group size should ideally be at least four but no more than five students to guarantee that each student participates. The formation of project groups should be done in such a way that each group contains a mix of students with various academic abilities, from the top to the ordinary. If the project is multi-disciplinary, a project group made up of students from several departments might be created. However, the project must be offered by at least one student from the Department.

## **PROJECT OVERVIEW**

**Stage 1:** Gathering requirements and literature survey

**Stage 2:** High level and detailed level design including writing the algorithm or business logic.

**Stage 3:** Coding

**Stage 4:** Result Analysis

**Stage 5:** Documentation

**All students and supervisors are encouraged to work on initiatives that are socially relevant and valuable that can be implemented in real time.**

## **EVALUATION PROCEDURE**

To guarantee that each project is carried out properly, the supervisor should review the progress of each project regularly, followed by the Department Evaluation Committee. To do this, each project group will give four presentations throughout the VII and VIII semesters.

### **REVIEW-1: (22-01-2022)**

#### **Objective:**

The **first presentation** in Semester VII will be a solely summary presentation, which will be taken by the Project Review Committee (PRC). The students are supposed to have already chosen the project. They must deliver a quick PowerPoint presentation in which they describe the project's principal goal/objective, the technique to be utilised, the PERT chart, and the references in no more than 10-15 slides. This presentation must first be given to the project supervisor, and only after his approval should it be given to the Department Evaluation Committee. Only if the project passes this presentation is it regarded as authorised. The PRC is intended to grade each student/group based on the substance of their project summary, the presentation they gave, the questions they answered, and their attendance. To ensure that the students are aware of what to do and how to do the project.

#### **Evaluation Criteria:**

1. Project area and topic selected.
2. The inputs required for the project. (Dataset names and source of data)
3. The expected outcome/results of the project including the performance measuring parameters in case it is a research-oriented project that is based on a research paper.
4. A brief (one page) literature survey with a few important references.
5. Hardware and software requirements to execute the project.
6. Algorithms/Tools/Techniques that may be used to execute the project.
7. A project plan with timelines and stage-wise deliverables. Mention approximately how many weeks or days you will take for each of the following stages.

#### **Documentation:**

The students must submit a two-to-three-page report as part of the review-1 duly signed by all the students of that batch and the supervisor to the PRC (Project Review Committee).

## **B.Tech Final Year Project Guidelines**

### **REVIEW-2: (26-02-2022)**

#### **Objective:**

After roughly a month following the initial presentation, the PRC will arrange the **second presentation** of the semester. This presentation will go over the students' progress. Each group will first submit its progress to their supervisors, who will sign a brief project report before presenting it to the PRC. A detailed literature survey, (A study of similar tools or products available if it is an application-oriented project), high level design or flow chart or algorithm explanation, Data collection, procurement of hardware/software tools. In addition, the groups must prepare a PowerPoint presentation (no more than 10-15 slides) and deliver it to the PRC. In their presentation, they must also clearly explain the agenda for the next review. The PRC is expected to grade each student/group based on their project topic, presentation, project progress, questions answered, and attendance. The PRC will complete the scores shortly after the presentation, and these marks, together with the remarks, will be presented within two days of the presentation date.

#### **Evaluation Criteria:**

1. Literature survey: A detailed study of existing work related to your project.

If the project is research-oriented: then you need to refer at least 5 to 10 research papers of good quality in that domain. Explain what people have done already, what algorithms/tools/techniques are being used. What are the expected outcomes/metrics/performance evaluation parameters? After writing the literature review you need to write a two to three lines of a summary of the literature review. If the project is pure application oriented: You need to prepare a detailed SRS (Software Requirement Specifications) document, by clearly identifying all the requirements, users, use cases.

2. Problem definition (High-level design/Block diagram/Flowchart/Algorithm): Here you need to tell what and how you are going to do your project. What are the algorithms and techniques (methodology) that you are going to use to solve the problem selected?
3. Data collection / Dataset names/source of data (List of inputs and expected outputs)
4. Procurement of Hardware/Software required for the project, you have to start working on your project, you need to show the proof of the same by installing all the necessary tools or hardware required for the project, to the review panel.

#### **Documentation:**

The students must submit a two-to-three-page report as part of the review-1 duly signed by all the students of that batch and the supervisor.

## **B.Tech Final Year Project Guidelines**

### **REVIEW-3: (26-03-2022)**

#### **Objective:**

PRC should plan for the **third presentation** around a month after the date of the second presentation. It will be done in the same fashion as the second presentation, and the groups will be assessed in the same way.

Complete knowledge of procedure and algorithms used. 50 to 60% project completion.

#### **Evaluation Criteria:**

1. The students are expected to explain the algorithm used in detail with sample inputs (mathematical examples) in case of research-oriented project.
2. In case of application-oriented project, they must explain the high level and detailed design or module wise logic. Database description (if any), data collected, number of tables, primary keys. Dependencies, methodology (Business logic).
3. Must have completed 40-50% coding, demonstrate some part of the project to the panel.

#### **Documentation:**

A detailed report of the above deliverables. (Title page + four to Five pages)

### **REVIEW-4: (23-04-2022)**

#### **Objective:**

The PRC will arrange the **final presentation** at the end of the VIII semester on the date specified in the project calendar. PRC, as well as all supervisors and co-supervisors in attendance, will give this presentation. The Committee will assess the pupils' development. Each group is obliged to provide a project report detailing the project's six-month progress. This report should be concise and focus on the detailed methodology/algorithms used/studied over the semester. The supervisors must sign this report, which must be submitted to the PRC at least two days before the final presentation. In addition, the groups must prepare a PowerPoint presentation (no more than 15-20 slides) to deliver to the final Committee. The PRC is expected to grade each student/group based on their project topic, presentation, project progress, questions answered, and attendance.

The dates of four presentations will be announced in advance. The first two presentations will be used to assess the work's progress. They must be presented in the same manner as the second presentation in Semester VIII, and the groups must be evaluated in the same way. Each project group must create a project report and submit it to the Department at least three days before the final internal presentation, once it has been officially validated by the Supervisors.

## **B.Tech Final Year Project Guidelines**

### **Evaluation Criteria:**

1. Must have completed 100% coding, demonstrate the project and results.
2. Able to explain every aspect of the project including the data sets, procedure, algorithms, results.

### **Documentation:**

The project batch must submit a rough draft of the project to the supervisor at least a week before the review-4. Supervisor shall make the necessary corrections/suggestions and if required the students may be asked to submit one more copy of rough draft.

Final corrections of the rough draft of the project report shall be made and returned to the students before review-4.

Students must submit the rough draft of the project books to the review panel after supervisor's corrections.

### **REVIEW-5: FINAL INTERNAL PRESENTATION (28-05-2022)**

#### **Objective:**

The **final internal presentation** will be held one- or two-weeks week before the date of the final external presentation, which will be set by Project Coordinator in the project calendar. This presentation will be presented in front of the PRC, and supervisors and co-supervisors should attend. This presentation will primarily contain all of the sessional marks for Semester VIII, with the marks from the prior two presentations being added to the final result. The supervisors, as well as the PRC, should thoroughly review and sign the final project report. In addition, the groups must prepare a final PowerPoint presentation and submit it to the final Committee. This presentation will show the entire project in action. The PRC is expected to grade each student/group based on their project topic, presentation, project progress, questions answered, and attendance. Within two days following the PRC's final presentation, each student's sessional marks will be determined.

Final project presentation. 100% completion of coding and documentation should be done.

Hard bound project reports must be shown in this final internal presentation.

The students will be given a soft copy of the Sample Project Paperwork, on which they must produce the documentation. Once the supervisor has approved it, it must be bound in the department's required format and shall be shown in the **final internal presentation**.

**The final viva-voce for the external project will take held between May 31 & June 4, 2022. Once the date has been set, it will be announced.**