Our department has a project coordinator and divisional project coordinators who monitor process of project completion and quality. The departmental project coordinator is a member of institute level committee (FYPQA) and plans the timeline and activities in the process based on guidelines framed by the institute committee in accordance to academic calendar.

The following are the key processes for monitoring the final year projects:

Project Orientation (V-IP)

Apart from pure technical skills, students are expected to do project to learn aspects such as,

- Collaboration, Communication, Critical thinking, Creative thinking, Innovation/novelty, new material/methodology, etc.
- Past and present work-related project work, self-study, planning and execution of project work.
- Testing, statistical analysis, results, and justification.
- Integration, multi-disciplinary and discovery-oriented approach.
- Possibility of conversion of project to product/start-up and usefulness to the society.

Hence, students are required to undertake project work with holistic approach. We expect students to follow following steps in this regard.

1. Study project ideas / abstracts displayed very carefully. Various problem statements defined for various hackathons may also be studied. Students may also present their own project ideas.
2. While in the process of deciding a project consider following aspects as well,

    a. Current & future relevance of domain area
    b. Ready skillset of group members
    c. Project title – clarity
    d. Span & depth of the work (too big work span is not necessary)
    e. Feasibility in terms of hardware & software requirements, data set availability, etc.
    f. Time estimates

3. It is highly recommended that students meet domain experts, related government/private officials in work, e.g., if project deals with firefighting equipment, one must pay visit to fire department and meet fire officers to take their inputs. Having references, proofs of connect with experts in the related field, their suggestions/comments will help in finalising and executing the project. Experts in other educational/research organisations, industries, foreign universities, authors of books/referred papers, VIT alumni in the related field may be contacted for this purpose. Students are required to include this evidence of conversations/connect in a report.

4. Students may form project group (tentative) as per skills needed for the project. A group may have maximum 3 and minimum 2 students. If the project work so demands, inter-class and/or inter-department students in a group may be allowed, however, there should be very proper justification for it.
5. Explore avenues to do internship in related domain.
6. During this preparatory period student may meet preferred guides and discuss at-least 5 topics related to domain.
7. Prepare docket/report on identified domain/topic to be discussed and present it at V-IP. This report may include expert interaction evidence in form of letters/emails, related research papers, suggestions of preferred faculty members.

8. Students are now required to focus all their energy on to the project work. A good project idea planned execution may lead to very fruitful product or a start-up. Hence, students are required to consider project as their career opportunity and work very seriously & sincerely.

Following are the steps further carried by the department for assignment of guide and finalization of project ideas.

1. V-IP: Objective is to ensure Third Year Students understand the UG Final Year Project Processes and are aware about the Department Goals for upcoming Final Year Projects.
2. Theme based project ideas: Department arranges a brainstorming session in which various trends in relevant industries/ technologies are discussed to finalize upon most promising few themes on which project ideas will be focused. Objective is to have goal-oriented projects implemented through several groups and to make students acquainted with recent technologies.
3. Guide allocation: Objective is to finalize student groups and their respective guides by mapping of Guide area of specialization/ interest and Domain preference submitted by students.
4. Project idea presentation by Students: Each project group of students survey and present multiple project ideas in front of panel members. The objective is to gather inputs from faculty expertise in different domains and define appropriate scope for the projects that can turn into good quality applications /products.
5. Approval process: To approve Project Ideas/ Titles by an expert panel appointed by the department.
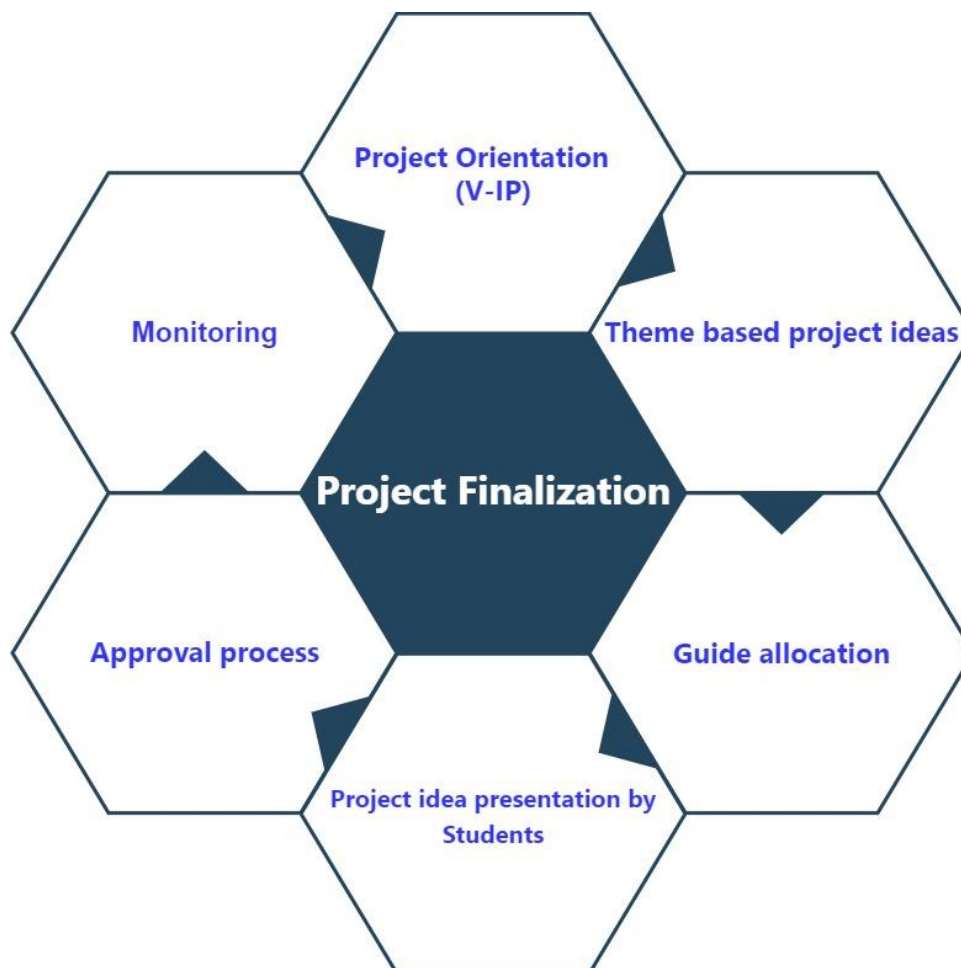
Figure: Project Finalization

Process for monitoring and evaluation
Final Year Project is an opportunity for the students to demonstrate outcomes through developing; •
Cognitive skills to review, analyse, consolidate, and synthesise knowledge to identify and provide solutions to complex problems with intellectual independence.
• Cognitive and technical skills to demonstrate a broad understanding of a body of knowledge and theoretical concepts with advanced understanding in some areas.
• Cognitive skills to exercise critical thinking and judgement in developing new understanding.
• Technical skills to design and use research in a project.
• Communication skills to present a clear and coherent exposition of knowledge and ideas to a variety of audiences.
• Knowledge and skills in diverse contexts, such as accountability for own learning and practice and to plan and execute project work and/or a piece of research and scholarship with some independence.

Monitoring process:
      i.To track and monitor progress of completion of each Final Year Project.
      ii.To track non-compliance and delays in project activities and lay down procedures for aligning them.
      iii.To adhere to Quality Standards defined by the Department Policy.

Activities performed to strengthen the monitoring and improve the quality of projects:
Monthly Review by departmental panel for continuous monitoring. Objective is to track percentage of completion of project work.

Reviewing various aspects of project life cycle:
The 4 reviews are focused towards monitoring the quality of relevant phase of project life cycle.
      1.   Review 1: Problem definition and Literature Survey.
      2.   Review 2: Analysis and Design
      3.   Review 3: Implementation
      4.   Review 4: Testing/ Debugging, Publication and Competition

In every semester of final year, the project coordinators of the department schedule two reviews per semester and all the students of Semester 7 are reviewed under following criteria:

Sr. No.	Roll No.	Name	Planning	Problem statement & objectives	Literature Review	Analysis	Total
			5	10	15	20	50

Similarly, the students of final semester are reviewed under following criteria:

Sr. No.	Roll No.	Name	Communication Skill	Knowledge of regulations	Environment concern	Implementation Results, Conclusion	Team-work	Total
			10	10	10	10	10	50

Every review has guide and an expert present for making it a rigorous process. The review gradings are used for calculation of the term work. The parameters used for the review process are mapped to the Learning Outcome/Course Outcomes which are further used for PO attainment calculation.

Weekly monitoring:
Weekly interaction of students with guide. Objective is to report the discussion on completed tasks and the planned work for upcoming week.

Weekly evaluation:
Guide evaluates each student in the group individually based on their contribution to the Project for that week. Objective is to have transparency in continuous evaluation and to achieve uniformity in involvement of group members.

Monthly Review:
Every project group present their work status during the review process and based on the parameters and work completion; panel members evaluate the overall performance of team. The project coordinator maintains the record of score obtained by each group during various review process during the semester. Objective is to have uniformity in the aspects of evaluation by different guides and to bring transparency in students regarding their evaluation process.

Classification of projects
Developing an application is an integral part of all final year projects. Students are motivated to extend their project into a product and to take up research-based topics as their final year project. The final year projects are not confined to the list provided; even groups are encouraged to present their innovative thoughts which are discussed with department experts to promote innovative projects.

Project Type	Application based	Product based	Research based	Innovative ideas

Students are prepared to design and implement environment friendly systems by analyzing literature and drawing valid inferences without compromising safety, cultural and societal values. Also, students are prepared to display professional ethics, leadership quality and to demonstrate effective verbal and written skill.

Publications and Competitions:
Every final year project group is made to prepare at least one technical paper based on the project and is to be published in reputed journals and conferences. All the students are also encouraged to participate in the project competitions held at national and international levels. Even the institute host international level project competition TANTRAVHIHAR and even international level conference RACEM which gives our students platform to participate in such activities.