



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering

Subject Code: 3182401

Semester – VIII

Subject Name: Internship/ Project

Type of course: Project work or Internship in industry

Prerequisite: Electrical Engineering courses (Basic science, Engineering Science and core courses), Effective Technical Communication and Design Engineering

Rationale: To enhance employability skills of the students Internship or Project work is required. It provides practical experience in a field of Electrical Engineering and help to reinforce theoretical knowledge gained in different courses to solve real life challenges. The students are given exposure to explore the new developments and techniques, which can lead them to self-employment or even employment generation through extension of the work done in project.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE (E)	PA (M)	ESE (V)	PA (I)		
0	0	24	12	0	0	100	100	200

Content:

Final semester of Power Electronics Engineering is dedicated to Major project work. Students can also undergo internship for at least 12 weeks.

Guidelines for Internship

1. It shall be of minimum duration of 12 week.
2. A student may submit a brief proposal about the work to be carried out in the internship, to a committee formed by head of department within 3 weeks, after starting the internship.
3. The internship shall be a full time for the whole duration.
4. A detailed daily diary is supposed to be maintained by student. It shall be signed duly by the concerned supervisor of industry. It shall be submitted to the department.
5. A comprehensive report is required to be prepared and submit to the department at the end of the semester. A certificate shall be attached with this report duly signed by the competent authority of the industry for the successful completion of the internship. An attendance report shall also be attached with this report.
6. The internal evaluation shall be done at the start of the semester, at the mid of the semester and at the end of the semester. The internal marks shall be divided as decided by the head.
7. An attendance report shall be sent to the department after every four weeks.
8. A plan for the whole internship duration shall be prepared after joining the industry after consultation with the supervisor/mentor/guide of industry. It shall contain the activities/ visits to different sections etc with appropriate timelines.
9. The project report shall be submitted to the institute which may include the objective of training, about the industry, process, product line, equipment/machineries involved, divisions/sections in the industry, any competitor, scope of some improvement in the process/product/efficiency, benefit by the training etc.



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10. The industry supervisor may be invited at the time of external examination of the internship, if possible. It can be an online presence.
11. The evaluation by external examiner shall be made considering the all guidelines.

The following guidelines are required to be followed for the project ...

General Guidelines for Project

1. It can be either UDP (user defined project) OR IDP (Industry defined project).
2. There shall be a committee at department level to regulate the quality and quantity of the work of each team. A presentation by the team shall be made at the beginning of the semester to a committee formed by head of department. This presentation shall contain the detailed proposal of the project, which includes title of the project, well defined problem and a plan of activities with appropriate timelines. The role of team member shall preferably be defined as far as possible in this proposal itself.
3. The group size of the project team shall not be preferably more than 4 students. In case it is required to have more students it shall be approved by a committee.
4. The stereotype study of system/circuit etc shall be avoided. E.g. study of Power transformer/400 kV substation are few examples, which shall be avoided.
5. The internal evaluation shall be done at the start of the semester, at the mid of the semester and at the end of the semester. The distribution of internal marks shall be decided by the committee.
6. The project work shall be carried out under the guidance of a faculty.
7. Every team shall submit a report at the mid of the semester.
8. A comprehensive report is required to be prepared and submit to the department at the end of the semester.
9. Considering the number of credits and the teaching hours, substantial amount of work is required to be carried out by student's team. It shall be monitored by the project guide and the department committee. The evaluation shall be done accordingly with due consideration given to the amount of work by internal examiner and external examiner.
10. The team shall be encouraged to publish project work, if possible.
11. The evaluation by external examiner shall be made considering the above guidelines.

The guidelines about the nature of project work are as following:

1. The project work can be simulation of circuits/system or hardware based depending upon the area and the complexity of the work involved.
2. If it contains only simulation, it shall be comprehensive. The team is expected to know the various aspects of simulation techniques in detail. The team shall be able to explain the results obtained in detail with all the aspects and different cases.
3. It can be a case study, innovative solution to real life problems, modeling and analysis, design, optimization, hardware prototype, industry defined problem, development of new lab setup at the department etc.
4. If it is a case study, it shall be a real-world case and of high technical relevance.
5. If the project is about a modeling, the team is expected to know the proper mathematical formulation and justification of the modeling, its limitations and its possible applications. The



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comparison of performance of various models shall be covered as a part of the work. A detailed analysis of the results shall be done with the help of the model.

6. If the team and guide find it appropriate, the overall work can be combination of different types of work above mentioned.

Distribution of Marks					
R Level	U Level	A Level	N Level	E Level	C Level
5	10	30	30	10	15

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Demonstrate a sound technical knowledge of their selected project topic	20%
CO-2	Undertake problem identification, formulation and solution	20%
CO-3	Design engineering solutions to complex problems utilising a systems approach and team work	30%
CO-4	Communicate with engineers and the community at large in written and oral forms	20%
CO-5	Demonstrate the knowledge and understanding of engineering and management principle and apply it to assigned project	10%

Reference:

- AICTE Model curriculum
- AICTE Internship Policy:

<https://www.aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf>