

GUJARAT TECHNOLOGICAL UNIVERSITY
ELECTRICAL ENGINEERING
B. E. SEMESTER: VII

Subject Name: **Project**
Subject Code: **170001**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
0	0	4	4	0	100	0	50

The project consists of two parts. The stage-I and stage-II. The student is supposed to carry out stage-I in 7th semester and stage-II in 8th semester. The stage-I has two parts. The first part is pre-project and the other part electrical product survey. The electrical product survey is to be carried out only in 7th semester.

PART-I (Pre-project)
(1 hour per week)

This is the main project of students. This part of the project is to be continued in 7th and 8th semester. In the 7th semester, the preliminary work of the project is to be carried out. Group of students will work for the project assigned or selected by the students, under the guidance of some faculty member.

PART-II (Electrical Product Survey)
(1 hour per week)
(Only in 7th Semester)

AIM: To make students understand and have exposure to various electrical items/goods/materials which are available in the market. Students should acquire the knowledge of available standard ratings of the materials/goods/items etc as the case may be.

At department level the group of 4-5 students will survey the market by personal visit to vendors, dealers, manufactures etc. as the case may be. Preferably the same group members will work for both parts of project. So that it is easier at the time of evaluation by external examiners. Students are expected to do survey of any one category of items/materials out of the following suggested but not limited to list of categories of electrical items/goods/materials.

- Types of fuses
- Insulating materials and insulators
- Cables
- Switches (all types of switches, changeover switch)
- Switchgears (ELCB, MCB, MCCB, ACB etc)
- Rotating machines for industrial purpose
- Electrical home appliances and rotating machines for residential purpose
- Batteries (all types)
- Transformers
- Semi-conductor devices
- Luminaries and light sources
- Electrical components like resistors, inductors and capacitors
- Capacitors (DC and AC capacitors, capacitors for power factor corrections, capacitors for induction furnaces etc)
- Electrical connectors
- Grounding grid elements like grounding rod, grounding pipe, etc
- Instruments sensors and transducers
- Electrical meters
- Electrical machines accessories

The group of students so formed is supposed to study/survey the total range of the electrical items/goods/material assigned to them. And prepare a report for the same. Students can take help of internet if required but it is discouraged that the complete report is prepared from the various resource material available on the internet.

At the department level, co-ordination of all groups should be done. The group/groups of students can select the category of electrical material/goods of their own choice.

The report of electrical product survey must include:

- Catalogues
- Pictures of the concerned items
- Working principle if applicable
- Some of the basic information viz. prices, specifications etc.

Finally, a presentation should be given by the concerned group of students in front of the faculty members of the department. Duration of the presentation should be half-hour per group. The report electrical product survey and pre-project should be merged to prepare a comprehensive report.