

Branch Name:	Electrical Engineering
Program Code	ET403
Course Name:	Electrical Engineering Project
Course Code:	2ET4030607
Pre-requisite Course:	

RATIONALE:

The major objective of this course is to develop Technology Related Skills in the students who desire to be an entrepreneur. For this course student has to survey the market, know the rates of project components, test the components, fabricate the project and assemble and test the components of the project. He has to refer No. of Technical journals and books to collect information to prepare report of the project. Thus, this course has very much importance in curriculum as far as the skills are concerned.

Apart from TRS the following generic skills may be developed through this course.

- (1) Survey the market.
- (2) Integrate and reinforce the knowledge and skill.
- (3) Collect information from library and other sources.
- (4) Collect information on latest developments for lab manuals, catalogues, journals, etc.
- (5) Develop confidence and ability to tackle new problems.
- (6) Follow standard test procedure for the given project.
- (7) Observe safety precautions
- (8) Develop communication skills in defending the project report.

COURSE OBJECTIVE:

The course content should be taught and implemented with the aim to develop different types of skills so that students are able to acquire following competency:

1. Create familiarity with the industry personnel & industrial environment as well as processes.
2. Survey the related literature.
3. Define the problem and the objectives of the project.
4. Suggest various design alternatives and justification of the selection of the design methodology for the problem solution along with design specifications.
5. Modelling and analysis of the proposed solution.
6. Simulate, Design and debugging of the circuit.
7. Partial Implementation of the proposed solution.
8. Develop program logic of the proposed solution
9. Locate the problem and troubleshoot.
10. Work in team cohesively & effectively
11. Prepare project report having organized documentation.
12. Prepare & deliver presentation.
13. Enhance awareness for latest technologies and tools.
14. Visualize the roadmap of the further development.

TEACHING AND EVALUATION SCHEME:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
0	0	6	3	00	00	40	60	100

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)			
Lecture	Tutorial	Practical	Credit	Theory		Practical	
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment
0	0	6	3	00	00	40	60

DETAILS OF COURSE CONTENTS:

Sr No	Topics and Sub-topics	Total Hours
Stage-I Shodh yatra	1.1 Information gathering through websites and media 1.2 Identification of department/Industry/research organization 1.3 Visit Industry/research organization. 1.4 Creating awareness about the industrial premises , personnel, processes and process 1.5 Review of literature	14
Stage– II Problem Definition & Submission	2.1 Defining problem in consultation with institute guide & industry 2.2 Preparing problem definition statement in the prescribed format and submit in soft and hard copy.	10
Stage– III Design Solution	3.1 Block Diagram of project. 3.2 Draw & Develop circuit diagram using circuit design software/tools. 3.3 Development of algorithm and flowchart if applicable.	25
Stage – IV Hardware/software simulation and Implementation	4.1 PCB Layout preparation 4.2 Circuit simulation. 4.3 Implementation using Breadboard or General-purpose PCB. 4.4 Test and troubleshoot hardware if applicable.	20
Stage – V Documentation & Presentation	5.1 Prepare project report as per guideline. 5.2 Prepare PPT and present as per schedule.	15

SUGGESTED LEARNING RESOURCES.

- a) Use of Library.
- b) Reference books.
- c) Hand books.
- d) Encyclopedia.
- e) Magazines.
- f) Periodicals.
- g) Journals.
- h) Visits of industry, organizations related as per the requirement.
- i) Different websites.