

**EE446: EXTERNAL PROJECT**  
**CREDITS = 28 (L=0, T=0, P=28)**

**Course Objective:**

The goal of this course is to apply and implement the concept of electrical design, simulation, analysis, program development, embedded solutions, etc. The individual's or group's project/industrial training should involve analysis, design, and implementation and testing of substantial hardware, software or any combination thereof in the field of study in the eighth semester.

**Teaching and Assessment Scheme:**

Teaching Scheme			Credits	Assessment Scheme				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE	CE	ESE	CE	600	
0	0	28	28	0	0	360		240

**Course Content and guideline:**

1. The Project shall exclusively be carried out at Industries/Organizations/Premier Institutes/Colleges other than BIRLA VISHVAKARMA MAHAVIDYALAYA, etc. Student shall physically be present at Industry/Organization/Premier Institute/Other College.
2. The Project shall be offered as an optional subject in the 8th semester and the credits of the project shall be equal to the total credits of the 8th semester.
3. The content or quantum of work shall justify with 28 credits per week, which means that minimum 28 hours per week attendance of student in the Industry/Organization is expected.
4. The maximum number of the students permitted for the Project shall be decided by the Departmental Academic Committee (DAC) in each year.
5. Allocation of the students to Industries/Organizations/Premier Institutes/Other Colleges shall be based on Merit Marks (i.e. CPI of the student). Details of the offering selection of the industries etc. shall be decided by the Departmental Academic Committee (DAC).
6. Minimum two guides shall be appointed for each project. Among them, at least one shall be from Industry/Organization/Premier Institute/other College in which the project is undergone.
7. The student can undertake the project individually or in a group of not more than two students. The objective of the Project Problem selected should be based on the organization's requirements as well as student's ability and interest.
8. The project must cover at least any two areas suggested below: (a) Design, analysis and/or fabrication, (b) Experimentation, (c) Simulations (d) Product design and development, (e) Industry needs based basic survey or Testing or Analysis etc. (f) Physical prototype development
9. Internal Guide/s shall closely monitor the progress of the Project.
10. A report comprising literature review, objective, methodology and scope of the project work undertaken, duly signed by project guide(s) and head of the department, will be submitted for the end semester examination.

**Course Outcomes (COs):**

After the successful completion of this course the student will be able to

1. Search, identify, and formulate problems.
2. Develop solutions to a problem using knowledge and understanding of mathematics, engineering sciences and computer engineering specialization.
3. Function effectively as an individual or as a member of a team to pursue a goal.
4. Demonstrate knowledge and understanding of management principles.
5. Demonstrate professional ethics.
6. Communicate effectively on complex engineering activities with the engineering community and with society at large.