

01CI0803 Project II
Course Objectives

- To generate awareness regarding relating the theory to the real life challenges pertaining to the civil engineering field.
- To provide a realistic platform to the students where, they understand the process of addressing the field issues, core knowledge application methods and ways of solutions for the problems.
- To facilitate the user oriented problem solving attitude amongst the students and make use of their inter-personal skills along with the learning from the theory for a safer and sustainable development of the infrastructural facilities for the society.
- To make the students learn how to correlate the industry, field, institution and the stake holders of each level through the project initialization and completion.

Course credits: 10
The Course Outcomes

After studying this subject student will be able to:

- Apply the theoretical knowledge to solve industrial/social problem.
- Understand, analyze and solve Medium/Large scale engineering field problems
- Demonstrate teamwork and leadership qualities.
- Design a solution with sustainability and professional ethical conduct as per field expectations

Teaching and Examination Scheme

Subject Name	Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
	Theory	Tutorial	Practical		ESE (E)	Mid Sem (M)	CSE	Viva (V)	Term Work (TW)	
Project II	0	0	10	10	-	-	-	50	50	100

Standard guidelines for project work

The project as a subject is offered to the students for overall development of an individual as to become capable to identify the real life challenges and ways to mitigate or solve the issues. The subject focuses on technical knowledge utilization, notion of service to the society and industry interaction of graduating students before beginning the professional career.

Following are some directives as minimum requirements of the successful completion of the subject;

Sr. No	Topic name
1	Problem identification process
	<p>The student or a group of the students identifies the topic to work based on following check list;</p> <ol style="list-style-type: none"> 1. Main thrust area of the academic subject; this may be a broad selection i.e. construction materials, construction techniques, methods and tools of analysis, data collection methods, programs and systems, design of structures, testing of material, system or elements, and many more of the similar types. 2. Identification of the industry/ field of application relevant to the area selected 3. Mapping the selection with the current availability of the skills, knowledge and facilities available at the institute/industry including the stake holders
2	Stream line the project contents
	<p>On finalizing the topic/problem to work on; the next step is to arrange the hypothesis and selection of the path or steps to be followed by a student. This will require the project contents to be arranged sequentially;</p> <ol style="list-style-type: none"> 1. Title or name of the project 2. Area of specialization as per the academic contents 3. Name of organization/industry if any 4. Existing issues or challenges identified: Exact definition, explanation and clear understanding is must on the issue being considered/addressed 5. Hypothesis for the problem solution: Available information, knowledge, implementation of resources and probable outcomes expected followed by the hypothesis. 6. Mapping of objectives and outcomes with an evaluation rubric 7. Final documentation, presentation, conclusion and demonstration of the results
3	Methods of data collection, gathering the information and streamlining the pre-processes
	<p>Irrespective of the topic/area selected following are some of the standard methods for data collection and gathering the initial information regarding the project work;</p> <ol style="list-style-type: none"> 1. Visits to the industry, sites, locations, or facilities. 2. Communication with end users, talks, real time surveys, interviews. 3. Visual data collection by video, pictures, sketches, leaflets etc. 4. Interactions with people and stake holders, scribing of ideas, suggestions. 5. Discussion with teachers, HODs, lab in-charge and group members /friends.

4	<p>Finalizing the work flow with development of a progress rubric</p> <p>On finalizing the pre-processes and narrowed or focused project topic, the work flow and progress rubric is the most important attribute for the project completion. This will need following things to be taken care;</p> <ol style="list-style-type: none"> 1. The progress rubric is actually a document to control the work pattern and pace of the work at various stages. The meaning of this rubric means it is a table containing a column of tasks with prescribed timings, title of work to be done, distribution of the roles and responsibilities to the group members, deadlines for completing the work, topics and subtopics being addressed etc. against the stipulated time frame. 2. All other relevant facts and figures are to be put on the paper with enough clarity for all. 3. The well defined tasks are allotted to all the members and date of recollection of the completed work should be finalized. This is the date must be mapped with the day of presentation against the teachers and the project guides or evaluators.
5	<p>Continuous progress, breakthrough and final conclusions</p> <p>The project work is a continuous learning. Therefore, at the regular breaks, there will be an evaluation where students shall show their progress to the evaluators and guides. The major breakthrough and important findings or solutions should be shown to the panel of experts. The students will receive valued feedback, suggestions and corrections in case by the experts to reach to the final conclusion. This stage will include following;</p> <ol style="list-style-type: none"> 1. Minimum three presentations by all students/groups to the guides and experts on the pre-defined dates and time limits. 2. The review card or review comments by the evaluating panel will be complied adequately and fulfilled by the students in their progressive presentations. 3. The final presentation will carry only the concluding points and attributes exhibiting the successful completion of the project. The final grading and marking that is in fact the summation of all the previous grading will be done at this stage and students will be awarded with final grades.
TOTAL	

Suggested Theory Distribution

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
5%	20%	15%	20%	10%	30%

Instructional Method and Pedagogy

As explained in the guidelines.