

Branch Name:	Civil Engineering
Program Code:	ET106
Course Title:	Engineering Project-II
Course Code:	2ET1060802P
Pre-requisite Course:	Students should possess fundamental and practical knowledge of core civil engineering subjects, supported by analytical, design, and software skills, along with prior exposure to minor project work and field/laboratory practices

Course Objective:

1. To develop the ability to identify, analyse, and solve real-life civil engineering problems
2. To provide hands-on experience in design, experimentation, and implementation
3. To encourage multidisciplinary integration (e.g., environmental, structural, geotechnical, transportation)
4. To enhance project planning, execution, and management skills
5. To develop professional competencies in documentation, teamwork, and presentation

Teaching and Examination Scheme:

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Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								
					Theory (Marks)				Practical (Marks)				Total (Marks)
	SEE		CCA		SEE		CCA						
	L	T	P	Total	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
10	-	-	20	20	-	-	-	-	70	175	70	175	350

Subject Contents:

Project Categories (Any One)

Students may select projects from:

1. **Design-Based Projects**
 - o Structural design (buildings, bridges)
 - o Pavement design
 - o Water supply/sewerage system design
2. **Experimental/Research-Based Projects**
 - o Material testing (e.g., concrete, soil)
 - o Environmental analysis (water/wastewater treatment)
 - o Advanced materials (adsorbents, geopolymers)
3. **Field-Based Projects**
 - o Site investigation
 - o Surveying and GIS mapping
 - o Construction management studies
4. **Simulation/Software-Based Projects**
 - o ETABS, STAAD, AutoCAD, Civil 3D, SWMM, etc.
 - o Traffic simulation, hydrological modeling
5. **Industry Internship-Based Projects**
 - o Work carried out during internship
 - o Site execution, quality control, project management

Project Execution Plan

Phase 1: Problem Identification (Weeks 1–2)

- Topic selection
- Literature review
- Problem statement formulation
- Objective definition
- Methodology planning

Phase 2: Planning & Design (Weeks 3–5)

- Data collection
- Design calculations
- Selection of tools/software
- Work plan (Gantt chart)

Phase 3: Implementation (Weeks 6–10)

- Experimentation / fieldwork / modeling
- Data analysis
- Interim results

Phase 4: Validation & Results (Weeks 11–13)

- Result interpretation
- Comparison with standards/codes
- Optimization

Phase 5: Documentation & Submission (Weeks 14–16)

- Report writing
- Final presentation
- Model/prototype demonstration