PROJECT II

ENCE 461

Credits: 4 **Year: IV** **Part: II**

Course Objective:
Project II serves as the direct continuation of Project I. Building upon the foundation established in the previous phase, students are required to complete the following tasks across their respective project categories:

1. Design-Type Project

1.1. Detailed design and structural analysis
1.2. Technical specifications and material requirements
1.3. Detailed engineering drawings
1.4. Quantity survey and cost estimation
1.5. Economic and financial feasibility
1.6. References and appendices

2. **Dissertation-Type Project**

2.1. Model formulation and theoretical framework (Defining the mathematical or conceptual model)
2.2. Data processing and model application (Running simulations or applying the model to the case study)
2.3. Results and comparative analysis (Comparison of model outputs with existing literature or field data)
2.4. Discussion of findings
2.5. Conclusions and scope for further research
2.6. References

3. **Experimental-Type Project**

3.1. Testing procedure and hypothesis validation (Executing the final experimental runs)
3.2. Data tabulation and graphical representation (Converting raw lab data into readable charts/graphs)
3.3. Results and statistical analysis (Correlation, regression, or error analysis of the test results)
3.4. Discussion of experimental outcomes (Evaluating performance against standard benchmarks)
3.5. Conclusions and practical applications (How the results can be used in real-world construction?)
3.6. References and photo gallery (Visual evidence of the experimental setup and failure modes)

Practical **(60 hours)**

1. **Continuation of Project I**
   The group will continue the works of Project I in consultation with the supervisor at the start of the semester. Following an introductory period of faculty guidance and lectures, students will work independently to execute their projects, seeking faculty support when challenges arise.
   There is internship in this semester and the students of a group may be engaged at different location. As the basic works of a project have been completed in Project I, the students can complete the Project II by connecting the group and supervisor online. However, it is suggested to work together physically before and after the internship.

2. **Start of Project II**
   Initially, faculty may provide a series of lectures and discussions regarding the project's methodology and approach. As the project progresses, students are expected to work independently, consulting their supervisors as needed for technical guidance.

3. **Mid-term Progress Presentation**
   A mid-term progress presentation is required 2 weeks before the end of the term. Group will present progress to the supervisor and will be evaluated for 20 marks. The supervisor has to provide individual marks to students based on their work progress, group presentation of work done and viva.

4. **Draft Report Submission and Presentation to Supervisor**
   Students are required to merge the findings of Project I and Project II into a consolidated draft report. To ensure quality, a draft report must be submitted to the supervisor for review before the final submission.

5. **Final Report Submission to Department**
   Following supervisor’s feedback and revisions, the final report shall be submitted to the Department after correction and formatted as per departmental guidelines.

6. **Final Evaluation by Supervisor**
   The presentation and report will be evaluated by the supervisor, accounting for 80 marks. The supervisor has to provide individual marks to students based on their work progress, group presentation of work done and viva. The full marks for Project II under supervisor are allocated equal to 100.

7. **Final Examination**
   The final presentation and exam will be held by the last week of the term after return from the internship. The final exam will be conducted by an external examiner or committee, accounting for 50 marks. Students should prepare power point presentation for final exam.