PROJECT II
ENEX 461

Credit: 4 **Year: IV** **Part: II**

Course Objectives

The objective of this course is to facilitate the second phase of the B.E. major project by enabling students to implement the system designed or research methodology developed in Project I using appropriate tools, technologies, and engineering practices. The course emphasizes systematic testing, validation, and performance evaluation of the developed system or experimental model, along with critical analysis and interpretation of results in comparison with existing solutions or baseline methods. It further aims to develop competencies in comprehensive technical documentation including preparation of the final report. In addition, the course strengthens students' ability to effectively communicate their work through presentation and demonstration.

General Procedures

Students continue their approved major project from Project I based on the selected track. The scope and topic remain the same, with refinements guided by prior evaluations. Project II focuses on the full-scale implementation of the proposed design or research methodology. Product-oriented/internship-based groups develop the complete system, including circuit integration, module interfacing, hardware plus software co-design, and prototype deployment. Research-oriented groups conduct detailed experimentation, model evaluation, and hypothesis validation using appropriate datasets, laboratory measurements, or simulations. Systematic testing and performance evaluation occur throughout development to ensure the correctness, reliability, and effectiveness of circuits, systems, or models. Results are analyzed and compared with existing methods where applicable. Necessary improvements are made iteratively based on findings and supervisor feedback. The phase concludes with final documentation, including analysis of outcomes and contributions, followed by submission of the final report in the department-approved format and a formal defense presentation.

Project II will be carried out as follows:

1 Progress Report and Presentation I

Submission of progress report and presentation two weeks after the commencement of eighth semester

2 Design, Development and Project Management

- 2.1 Design and development of major project(software/hardware/hybrid system)
- 2.2 Application of programming skills, algorithms and engineering tools
- 2.3 Integration of concepts from different subjects of electronics, communication and information engineering
- 2.4 Time management, resource management, work division etc

3 Implementation and Testing

- 3.1 Implementation and deployment of the project

3.2 Testing and validation of the developed system (unit testing, integration testing, and user testing)

3.3 Performance evaluation and improvement

4 Progress Report Submission and Presentation II

Submission of progress report and presentation 2 months after the commencement of eighth semester

5 Final Project Report Submission

Final project report submission 3 weeks before the end of eighth semester

6 Final Defense and Demonstration

Final defense and demonstration 2 week before the end of eighth semester

Internal Evaluation

The marks allocated for final internal evaluation is 100. It will be done on the following basis:

Details	Weightage	Marks
Progress Report and Presentation I	5%	5
Progress Report and Presentation II	5%	5
Project Design, Development, Implementation and Testing	30%	30
Documentation	20%	20
Final Report and Presentation	20%	20
Demonstration	20%	20

External Evaluation

The marks allocated for final external evaluation is 50. The external examiner will evaluate the project II on the basis of report, presentation and demonstration.

General Guidelines

The formatting and other guidelines remains the same as outlined in Project I syllabus.