Course Title : **Project Work-II**		Course Code	: **15EC66P**
Semester : **6**		Course Group	: **Core**
Teaching Scheme in Hr. (L:T:P) : **0:2:4**		Credits	: **3**
Type of course	: **Tutorial + Practical**	Total Contact Hours	: **78**
CIE	: **25 Marks**	SEE	: **50 Marks**

Prerequisites

Knowledge of electronics and communication engineering, and programming languages.

Course Objectives

Application of the knowledge/concepts acquired in the lower semesters to create/design/implement project relevant to the field of Electronics and Communication Engineering.

Course Outcomes

At the end of the course, the students will be able to
1. Create/Design the project.
2. Implement/Simulate/Test and deploy the project application.
3. Present and defend the project relevance/creation/design/implementation/simulation
4. Prepare project report in a standard format

	Course Outcome	**CL**	**Teaching Hrs**
CO1	Create/Design the project	*R/U/A/C*	42
CO2	Implement/Simulate/Test and deploy the project application.	*R/U/A/C*	15
CO3	Present and defend the project relevance/creation/design/implementation/simulation	*R/U/A/E/C*	06
CO4	Prepare project report in a standard format	*U/A/E/C*	15
	Total sessions include two tests		**78**

Legend: R-Remember, U-Understand, A-Application, E-Evaluate, C-Create, CL-Cognitive Level, and PO-Program Outcome

Mapping Course Outcomes with Program Outcomes

Course Outcomes	Programme Outcomes									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	*	*	*	*	--	--	*	--	*	*
CO2	*	*	*	*	--	--	--	*	--	*
CO3	*	*	*	*	*	--	*	*	--	*
CO4	*	*	*	*	*	*	--	*	--	*

Course-PO Attainment Matrix

Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
Project Work-II	**3**	**3**	**3**	**3**	**3**	--	--	**3**	**1**	**3**
Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed. Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO. If ≥40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3 If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2 If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1 If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not addressed.										

Course Assessment and Evaluation Scheme

Master Scheme

Assessment Method	What		To Whom	Assessment mode /Frequency /timing	Max. Marks	Evidence Collected	Course Outcomes
Direct assessment	CIE	IA	Students	Demonstration	10	Project Model/SW	1 to 4
				Presentation	10		1 to 4
				Report	5	Project Model	1 to 4
	SEE	End exam		End of the course	50	Answer Scripts at BTE	1 to 4
				Total	75		
Indirect assessment	Student feedback on course		Students	Middle of the Course	Nil	Feedback Forms	1 to 3 & Delivery of course

	End of course survey		End of the Course	Nil	Questionnaires	1 to 4, Effectiveness of delivery instructions & assessment methods

Legends: CIE-Continuous Internal Evaluation, SEE- Semester End-exam Evaluation

[+] Every I.A. component shall be conducted as per SEE scheme of valuation.

- Project evaluation is based on the following Rubrics table

Composition of CLs

Sl. No.	Cognitive Levels (CL)	Weightage (%)
1	Remembering	10
2	Understanding	10
3	Applying	30
4	Evaluation	20
5	Create	30
	Total	**100**

Continuous Internal Evaluation (CIE) pattern

(i) Model of rubrics for assessing project activity (for every student)

Dimension	Scale					Marks (Example)
	1 Unsatisfactory	**2 Developing**	**3 Satisfactory**	**4 Good**	**5 Exemplary**	
1. Information search and Collection.	Does not collect information relate to topic	Collects very limited information, some relate to topic	Collects basic information, most refer to the topic	Collects more information, most refer to the topic	Collects a great deals of information, all refer to the topic	3
2. Full-fills team roles and duties	Does not perform any duties assigned to the team role	Performs very little duties	Performs nearly all duties	Performs almost all duties	Performs all duties of assigned team roles	2
3. Shares work equality	Always relies on others to do the work	Rarely does the assigned work, often needs reminding	Usually does the assigned work, rarely needs reminding	Always does the assigned work, rarely needs reminding.	Always does the assigned work, without needing reminding	5

4. Listening Skills	Is always talking, never allows anyone to else to speak	Usually does most of the talking, rarely allows others to speak	Listens, but sometimes talk too much,	Listens and talks a little more than needed.	Listens and talks a fare amount	3
					Total marks	ceil(13/4)= 4

(ii)   CIE/IA (10+10 Marks)
   Demonstration and presentation of the project

(iii) Report Evaluation (5 Marks)

Structure of Project report:

1. **Front cover page:** Containing title of the project, year, prescribed authority, names of students, guide name, department, institution name and address.
2. **Certificate page:** Certificate stating the completion of the Bonafide project, certified by guide, HOD and Principal
3. **Abstract**
4. **List of contents/tables/figures**
5. **Body of the report:** Body of the project should normally contain the following appropriate/relevant parts/chapters
    1) Introduction
    2) Literature survey
    3) Block-diagram level conceptualization/system block diagram
    4) Hardware design and implementation
    5) Software design: Flow chart-level dealing
    6) Assembly/Fabrication/User manual/Operational instructions
    7) Conclusion and Future Developments
    8) Reference/Bibliography
6. **Back cover page**
7. **Physical attributes:** Size not to exceed 40 pages (20 sheets) unless it is essentially required. Avoid datasheets and programs unless essentially required. Back to back printing. Spiral binding.
8. **Fonts and Page layout:** A4 size with standard/default MS word page layout. Times New Roman font, Font size: 10 for captions, 12 for running text and sub-titles, 14 for paragraph titles and 16 for chapter titles.

Semester End-exam Evaluation (SEE) Scheme

Sl. No.	Scheme	Max. Marks
1.	Writing block diagram/functional diagram	20
2.	Testing/Demonstration	20
3.	Viva-voce	10
	Total	**50**

Note:
1. Candidate is expected to submit the Project report record for the examination.
2. Project report shall not exceed 40 pages/20 sheets (two-side printing) with spiral binding

End