Semester VIII

Internship & Project Work

Course Code	23EC3861	**Year**	IV	**Semester**	II
Course Category	Internship & Project Work	**Branch**	ECE	**Course Type**	Project
Credits	12	**L-T-P**	0-0-24	**Prerequisites**	--
Continuous Internal Evaluation:	60	**Semester End Evaluation:**	140	**Total Marks:**	200

Course Outcomes		
Upon successful completion of the course, the student will be able to		BL
CO1	Identify and define real world engineering problems with consideration of sustainability and societal needs through literature survey.	L2
CO2	Apply appropriate engineering knowledge, tools, and modern techniques to develop eco-friendly solutions	L3
CO3	Utilize advanced tools and techniques to develop optimized and resource-efficient engineering solutions.	L4
CO4	Design and develop innovative systems or proto-types addressing real time challenges	L5
CO5	Plan and manage project activities efficiently ensuring optimal use of resources while promoting life-long learning and professional responsibility.	L5
CO6	Prepare technical reports effectively contributing to knowledge dissemination and technological advancements	L3

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of Correlations (3:High, 2:Medium,1:Low)

Cos	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**
CO1	2	3	3	3	3	3	3	3	3	2	1	2	3
CO2	3	3	3	3	3	3	3	3	3	1	1	2	2
CO3	3	1	1	3	3	2	1	3	3	1	1	2	2
CO4	3	3	3	3	3	2	3	3	3	2	1	2	3
CO5	3	3	3	3	3	2	3	3	3	2	1	2	3
CO6	1	1	3	2	3	3	1	3	3	3	2	2	1
Avg.	3	3	3	3	3	3	3	3	3	2	1	2	2

Objective

- Project work play an important role in final (8^{th}) semester and students have to apply their technical knowledge and skills to develop projects individually with innovative ideas using latest technological tools to solve societal/industrial/research problems.

Guidelines:

- This course will be offered to the all final year Electronics and Communication engineering students during the 8^{th} semester.
- The project wok can be in various forms such as experimental work or simulation analysis.
- The project work selection and execution enhances the technical skills of the students and make them fit to industry requirements.

- ❖ Students have to exhibit a high degree of innovation, commitment and team work in executing the project work.
- ❖ Project work should be carried out in such a way that it should meet the societal needs and Sustainable Development Goals (SDGs).
- ❖ Students will carry out project by applying the knowledge gained in the following areas of Electronics and Communication Engineering to solve societal problems

    - Communications, Networking and Signal Processing/Machine Learning
    - System, Control and Robotics
    - Image processing, wireless sensor networks and antennas
    - Electromagnetics and Analog/RF/Biomedical Circuits.
    - IoT and VLSI

Implementation:

- ❖ A project coordinator is appointed who is responsible for planning, scheduling and execution of all the activities related to the student project work
- ❖ Project presentation is taken twice per semester in the presence of a project panel and students have to meet the concerned project supervisor regularly
- ❖ Students are guided to take up projects related to state of art, industry relevant, hardware, and latest software areas
- ❖ Projects are based on mathematical modeling through simulation to analyze the operation and performance in core and multidisciplinary areas
- ❖ The hardware prototyping through various building blocks are carried out in the respective laboratories/industry

Impact Analysis:

- ❖ New innovative ideas are born for project work
- ❖ Skills or abilities of students will improve
- ❖ Knowledge on various aspects of project management are developed
- ❖ Confidence level of the students is boosted
- ❖ Team spirit improves
- ❖ Implementation and deployment of the project for social benefits improves
- ❖ Document preparation and presentation skills will improve