

Project work, Seminar & Internship in Industry

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|--|-----------------------------|---------------------------------|-----|----------------------|---------|
| Course Code | 20EC3861 | Year | IV | Semester | II |
| Course Category | Project work and Internship | Branch | ECE | Course Type | Project |
| Credits | 8 | L-T-P | -- | Prerequisites | -- |
| Continuous Internal Evaluation: | 60 | Semester End Evaluation: | 140 | Total Marks: | 200 |

Course Outcomes

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| Upon successful completion of the course, the student will be able to | |
| CO1 | Identify real world problems by survey/industrial/research/societal interaction |
| CO2 | Apply pertinent engineering principles and theories to design/ build/ operate/ simulate and analyze the product/system/concept |
| CO3 | Apply advanced techniques and simulation tools to give optimum design/solution |
| CO4 | Implement social/ cultural/environmental regulations in the development |
| CO5 | Plan for the effective utilization of resources and lifelong learning |
| CO6 | Develop technical reports for the results and present for future applications |

Mapping of course outcomes with Program outcomes (CO/ PO/PSO Matrix)

Note: 1- Weak correlation 2-Medium correlation 3-Strong correlation

* - Average value indicates course correlation strength with mapped PO

| COs | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| CO1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 2 |
| CO3 | 3 | 1 | 1 | 3 | 3 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 2 | 2 |
| CO4 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 |
| CO5 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 |
| CO6 | 1 | 1 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | 1 |

Objective

Project work play important role in final (8th) 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 subject will be offered to the all final year Electronics and Communication engineering students during the 8th semester.
- ❖ The project wok can be in various forms such as experimental work, simulation analysis, Industrial liaison and soon.
- ❖ 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
- He/she will carry out a minor project by applying the knowledge gained in the 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 modelling 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