GANPAT UNIVERSITY

FACULTY OF DIPLOMA ENGINEERING

Programme	Diploma Engineering					Branch/Spec.	Electronics and Communication Engineering		
Semester	VI					Version	1.0.0.0		
Effective from Academic Year			2026-27			Effective for the Batch admitted in			July 2024
Course Code	1EC6103		Course Name			Project Development and Internship			
Teaching Scheme						Examination Scheme (Marks)			
(Per week)	Lecture (DT)		Practical (Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	0	0	8	0	8	Theory	00	00	00
Hours	0	0	16	0	16	Practical	100	100	200

Pre-requisites

Fundamentals of Electronics and Communication Engineering, Basic use of simulation and design tools

Course Outcomes

On successful completion of the course, the students will be able to:

CO1	Design and develop innovative solutions for real-world problems by applying engineering knowledge and contemporary tools.
CO2	Analyze complex problems and develop feasible solutions considering technical, economic, and societal aspects.
CO3	Demonstrate project management skills through effective planning, documentation, and implementation while working in teams.
CO4	Present technical solutions professionally through proper documentation, demonstration, and communication.

Guidelines:

- Students have to do project work individually or in the team with **prior approval** of the project guide/coordinator.
- Evaluation will be carried out to individual students.
- There will be 2 midterm evaluations along with a presentation.
- First midterm evaluation will be within 6 weeks and second midterm evaluation will be within 10 weeks from the starting of semester.
- Final evaluation will be done by an external examiner.
- Students need to follow the department guidelines strictly.
- The project topic must be **relevant to ECE domain as mentioned below** and aligned with **current technology trends**.

    - Embedded Systems and IoT Projects
    - Communication Systems and Networks
    - Signal Processing and Image Processing Applications
    - VLSI / FPGA-based Design Projects
    - Electronics Hardware Design and Implementation
    - RF, Microwave, and Antenna Design Projects
    - Automation, Control, and Instrumentation Systems
    - AI / ML Applications in Electronics
    - System Modeling and Simulation
    - Research-Oriented and Experimental Projects
    - Product Design and Prototype Development
    - Technical Survey with Implementation / Case Study

- The project should demonstrate **technical depth, innovation, and practical applicability**.

- Students must follow a **systematic engineering design approach** and maintain a **project logbook**.

- Internship should be undertaken in a **recognized industry, research organization, startup, or government body** relevant to the program.
- Internship objectives must be **defined and approved** by the department/institute before commencement.
- Students are required to **maintain an internship logbook/diary** and follow organizational discipline.
- A **completion certificate** from the organization is mandatory.
- Students must submit an **internship report** detailing work carried out, learning outcomes, and skills acquired.
- Internship assessment may include **report evaluation, presentation, and viva-voce**.

Scope of work
The students are encouraged to utilize state of the art technologies, tools for development, testing and documentation of the project.

Mapping of CO with PO and PSO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	3	2	3	1	1	1	1	1	1	2	2	1	1
CO2	2	3	2	2	1	2	2	1	0	1	1	2	1	2	2
CO3	1	2	2	1	1	0	0	1	3	2	3	2	2	1	1
CO4	1	1	1	1	1	0	0	1	2	3	1	2	1	2	2