

LESSON PLAN

PPS LAB

3rd Semester Diploma in Electrical Engineering (SCTEVT
Odisha)



Name of the Faculty-

SIBANANDAPATHY

PPS LAB

DEPARTMENT OF ELECTRICAL ENGINEERING

VISION:

To produce Electrical Engineer professionals who can contribute for socio-economic and technological development to meet global needs.

MISSION:

M1 - To strengthen academic infrastructure leading to quality professional by using modern technical tools and technologies.

M2 - To impart innovative knowledge among the students and make more industry-institution programs to make them successful professionals for serving the society.

M3 - To provide a learning environment to improve problem solving abilities, leadership abilities, ethical responsibilities and lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: Apply electrical engineering knowledge and practical skills to solve well-defined engineering problems using modern tools and techniques.

PEO2: Perform effectively in industry and society as competent junior engineer, supervisors, or entrepreneurs with ethical and sustainable engineering practices.

PEO3: Demonstrate teamwork, communication, leadership, and project management skills in professional engineering activities.

PEO4: Engage in lifelong learning and adapt to emerging technologies for career growth and higher education.

PROGRAM SPECIFIC OUTCOMES

The electrical diploma engineers will be able to:

PSO1:-Apply the fundamentals of mathematics, science and engineering knowledge to identify, formulate, design and investigate engineering problems of electric circuits, analog and digital electronics, control system, electrical machines and power system.

PSO2:- Apply the appropriate techniques and modern engineering hardware and software tools in electrical engineering to engage in life-long learning and to successfully adapt in multidisciplinary environments.

PSO3:-Work professionally in power systems engineering, Electrical machinery and electrical circuit.

Sl. No.	Laboratory Experiment	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PS O1	PS O2	PS O3
1	Display College Name Twenty Times	3	2	–	2	2	–	1	3	2	–
2	Sum of Even Numbers (1–100)	3	3	1	2	2	–	1	3	2	–
3	Find Smallest and Largest Number in an Array	3	3	2	2	2	–	1	3	2	–
4	Sort Array in Ascending/Descending Order	3	3	2	2	2	–	1	3	2	–
5	Input and Display a 3×3 Matrix	3	2	2	2	2	–	1	3	2	–
6	Matrix Addition and Subtraction	3	3	2	2	2	–	1	3	2	–
7	Matrix Multiplication	3	3	3	2	2	–	1	3	2	–
8	String Functions (strlen, strcpy, strcmp, strcat)	3	3	2	2	2	–	1	3	3	–
9	Area of Circle Using Function	3	2	2	2	2	–	1	3	2	–
10	Factorial Using Recursion	3	3	2	2	2	–	2	3	3	–
11	Call by Value, Call by Reference & Pointers	3	3	2	2	3	–	2	3	3	–
12	MATLAB Basics, Arrays and Matrix Operations	3	3	3	3	3	–	2	3	3	2
13	MATLAB Scripts and Functions	3	3	3	3	3	–	2	3	3	2
14	MATLAB Plotting and Simulink Basics	3	2	3	3	3	1	2	3	3	3

Class	Topics to be Covered
1	Introduction to C Programming, Structure of C Program, Compilation & Execution, Variables, Data Types, Constants, Keywords, Identifiers, Input & Output using <code>printf()</code> and <code>scanf()</code> .
2	Experiment 1: Write a C program to display the college name twenty times using <code>for</code> , <code>while</code> and <code>do-while</code> loops.
3	Decision Making Statements (<code>if</code> , <code>if-else</code> , <code>Nested if</code>), Relational and Logical Operators, Experiment 2: Sum of all even numbers from 1 to 100.
4	One-Dimensional Arrays Experiment 3: Find the smallest and largest number from an array.
5	Sorting Techniques Experiment 4: Sort array elements in ascending and descending order.
6	Two-Dimensional Arrays Experiment 5: Input and display a 3×3 matrix.
7	Experiment 6: Matrix Addition and Subtraction.
8	Experiment 7: Matrix Multiplication.
9	String Handling, String Functions (<code>strlen()</code> , <code>strcpy()</code> , <code>strcmp()</code> , <code>strcat()</code>), Experiment 8.
10	User-Defined Functions, Experiment 9: Calculate the area of a circle using a function.
11	Recursion, Experiment 10: Calculate the factorial of a number using recursion.
12	Pointers, Call by Value, Call by Reference, Pointer Arithmetic, Experiment 11.
13	Introduction to MATLAB, MATLAB Environment, Variables, Arrays, Matrix Operations.
14	MATLAB Scripts, Functions, Mathematical Operations, Plotting.
15	MATLAB Simulink Basics, Matrix Manipulation, Simulink Libraries.
16	Revision of All C and MATLAB Programs, Practical Demonstration and Viva Preparation.

Faculty Signature: _____

HOD Signature: _____