CAD/CAM LAB

Course code	19ME3651	Year	III	Semester	II
Course category	Program Core	Branch	ME	Course Type	Practical
Credits	1.5	L-T-P	0-0-3	Prerequisites	Nil
Continuous Internal Evaluation	25	Semester End Evaluation	50	Total Marks	75

Course Outcomes		Levels
Upon successful completion of the course, the student will be able to		
CO1	Demonstrate the main stages of Finite Element analysis.	L3
CO2	Perform modeling and analysis of structural and heat transfer problems.	L4
CO3	Machine simple components on CNC machines	L3
CO4	Use CAM software to generate NC code	L4

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

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

Syllabus		
Expt. No	**Contents**	**Mapped CO**
	CAD LAB	
1.	Static analysis of indeterminate/ composite bars	CO1 CO2
2.	Shear force and bending moment diagrams of a beam	
3.	Thermal stress in bar.	
4.	static analysis of plane or 3-space truss/frame	
5.	Evaluation of Stress concentration factor in a rectangular plate with central hole	
6.	Stress distribution in thick a cylinder subjected to internal and/external pressures	
	CAM LAB	
7.	Rectangular contouring on XL MILL	CO3
8.	Arbitrary contouring on XL MILL	
9.	Step turning on XLTURN	
10.	Taper Turning on XLTURN	
11.	Rectangular and Arbitrary contouring NC code generation using ESPRIT	CO4
12.	Step turning and Taper Turning NC code generation using ESPRIT	