

COMPUTER AIDED MACHINE DRAWING PRACTICE LAB

Course Code	20ES1354	Year	II	Semester	I
Course Category	Engineering Science	Branch	ME	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	Engineering Graphics
Continuous Internal Evaluation	15	Semester End Evaluation	35	Total Marks	50

Course Outcomes: Upon successful completion of the course, the student will be able to

CO	Statement	Skill	BTL	Experiment Section
CO1	Apply the principles of engineering drawing to draw the machine components as per Indian Standard Code of practice using drafting software.	Apply	L3	A
CO2	Develop assembly drawings from part drawings using Modelling software.	Develop	L3	B

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

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

Syllabus

Section	Course Content	COs
A	<p>The following contents are to be done by any 2D software package</p> <p>Conventional representation of materials and machine components:</p> <p>Detachable joint: Thread profiles, hexagonal and square-headed bolts and nuts, bolted joint with washer and locknut.</p> <p>Riveted joints: Types of rivet heads, single riveted and double riveted lap joints, butt joint with single riveted, double riveted, single strap and double strap joints.</p> <p>Keys: Sunk key, round key, saddle key, woodruff key.</p> <p>Cotter Joints: Cotter joint with Socket and spigot ends, Knuckle Joint.</p> <p>Shaft coupling: bushed pin-type flanged coupling, Oldham's coupling.</p>	CO1
B	<p>The following tasks to be done by any 3D software package</p> <p>Solid modeling of machine components and their assembly. (Any two of the following)</p> <p>Screw jack, Stuffing box, Single tool post, Universal coupling.</p>	CO2

Learning Resources

Text Books

1. Machine Drawing by K.L.Narayan, P.Kannaiah and K.Venkata Reddy, 5th edition, New Age Publications 2016.
2. Machine Drawing with Auto CAD, 1st edition, Gowtham Pohit and Goutam Ghosh, Pearson Education, Delhi, 2004.

Reference Books

1. Machine Drawing, by R.K.Dhawan, S. Chand Publications, New Delhi, 2016.
2. Text Book of Machine Drawing by K.C.John, PHI Learning Pvt.Ltd., New Delhi, 2010.