

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

CO1	Apply the principles of engineering drawing to draw the machine components as per Indian Standard Code of practice using drafting software.	L3
CO2	Develop assembly drawings from part drawings using Modelling software.	L3

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

Course Content		MAPPED 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.</p> <p>(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.