COMPUTER AIDED MACHINE DRAWING

Course Code: 22ME1109

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0	0	3	1.5

Course Outcomes: At the end of the course, the student will be able to
CO1: use the conventional representations of materials and machine components
CO2: model various riveted and keyed joints
CO3: generate solid models of machine components
CO4: develop and assemble solid models of machine parts
CO5: generate the sectional and orthographic views of assembled components

List of Exercises:
Note: Any **twelve** of the following exercises are to be performed.

The following exercises are to be done using AutoCAD
1. Conventional representation of materials and common machine elements.
2. Popular forms of Screw threads, bolts, and nuts
3. Riveted joints for plates
4. Flange Coupling
5. Knuckle joint
6. Spigot and socket pipe joint
7. Journal bearing and foot step bearing

The following exercises are to be done in 3D modeling using CATIA
8. Solid modeling
9. Modeling and assembly of parts in drill jig
10. Modeling and assembly of parts in screw jack
11. Modeling and assembly of parts in Universal coupling
12. Assembly of engine connecting rod and piston
13. Generation of orthographic views and sections of drill jig
14. Generation of orthographic views and sections of screw jack

Software Packages: Auto CAD, CATIA V5.

Text Book:
1. K.L.Narayana, P.Kannaiah and K. Venkata Reddy, *Machine Drawing*, 3rd Edition, New Age Publishers, 2007.

Reference Books:
1. N D Bhatt, *Machine Drawing*, 44th Edition, Charotar Publishers, 2009.
2. K C John, *Text book of Machine Drawing,* PHI Learning Pvt. Ltd., 2nd edition, 2010.