Simulation Lab

Objective: To impart knowledge on usage of various drafting, modeling , analytical tools like auto cad, pro/e, Ansys for engineering simulations in industry's by solving some real time problems

Sections Handled: IV-A, IV-B

Major Equipment Details:

Sl.No	Equipment Name	Qty
1.	Desk Tops	36
2.	UPS	1
3.	MTAB XLTURN CNC SLANT BED LATHE	1
4.	Ansys academic teaching mechanical &CFD version 2,56,00 nodes version 18.0	50users
5.	CREO 4.0	50users

Faculty In charge with qualification: D.BalaNagesh-M.Tech
Lab Technical name with qualification: B.Naresh-D.M,E

Experiment list as per curriculum:

1.a) Draw the Orthographic views of machine block using AutoCAD 2011.
b) Draw the Orthographic views of shaft support using AutoCAD 2011.
2.a) Draw the Orthographic views of machine component using AutoCAD 2011.
b) Draw the Isometric drawing using AutoCAD 2011.
3.a) Modeling of depth stock using Pro/E wildfire.
b) Modeling of fork using Pro/E wildfire.
4.Assembly of protected flanged coupling using Pro/E wildfire.
5.Assembly of stuffing box using Pro/E wildfire.
6.a).2D truss using Ansys. Take E=2E5, poisons ratio = 0.3
6.b) Analysis of continuous beam with overhang using Ansys.
7.2D Structural analysis using Ansys.
8.3D Structural analysis using Ansys.
9.Steady state analysis of a plate with part loading using Ansys.
10.a) Study of various post processor statements
10.b) Step turning cycle,
11. Multiple turning cycle

Experiment list beyond the curriculum

1.a) Buckling analysis using Ansys
b) Modal analysis using Ansys