2012-13

PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY

(PROPOSED COURSE STRUCTURE FOR AUTONOMOUS SCHEME)

I Year M. Tech. (Machine Design) M.E.	**T**	**P**	**C**
	0	**3**	**2**

MEMD2L1 - MACHINE DYNAMICS LAB

List of Experiments:

1. Determination of the magnitude of gyroscopic couple, angular velocity of precession, and representation of vectors
2. Checking of Static balancing using steel balls
3. Determination of the magnitude and orientation of the balancing mass in dynamic balancing
4. Determination of steady state amplitude of a forced vibratory system without damping
5. Determination of steady state amplitude of a forced vibratory system with damping
6. Determination of vibrations in machines using FFT analyzer
7. Determination of misalignment in given machine using FFT analyzer
8. Diagnosis of unbalance in a machine using FFT analyzer.
9. Direct kinematic analysis of a robot
10. Inverse kinematic analysis of a robot
11. Trajectory planning of a robot in joint space scheme.
12. Palletizing operation using Robot programming.

List of Equipments:

1. Static & dynamic balancing machine
2. Motorized gyroscope
3. Universal vibration equipment
4. FFT analyzer
5. Robocell software