Machine Dynamics Laboratory			
Hours/Week L-T-P :	0-0-3	Credits:	1.5
Course Type :	Laboratory Course	Course Code:	MS2505

Course Objectives:

1. Determine the vibration parameters of a vibrating system.
2. Predict the radius of gyration and moment of inertia of vibrating system.
3. Verify the static and dynamic balancing.
4. Study the effect of gyroscopic couple and operations of robotic arm.

Course Outcomes:

CO1: Understand the various practical demonstrations of forces in mechanism.

CO2: Knowledge of various design features of mechanism with practical demonstration.

CO3: Learning the Special purpose mechanism (governor, Gyroscope Cam and followers etc. used in designing of a machine.

CO4: Measure the amplitude of vibration in damped and un damped vibrating system

List of experiments:

1. To perform experiment on watt and Porter Governors to prepare performance characteristic Curves, and to find stability & sensitivity.
2. To perform experiment on Proell Governors to prepare performance characteristic Curves, and to find stability & sensitivity.
3. To perform experiment Hartwell Governors to prepare performance characteristic Curves, and to find stability & sensitivity.
4. To perform the experiment for static balancing on static balancing machine.
5. To perform the experiment for dynamic balancing on dynamic balancing machine.
6. Determine the moment of inertial of connecting rod by compound pendulum method and tri-flair suspension pendulum.
7. To determine gyroscopic couple on Motorized Gyroscope.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	2	-	1	1	2	1	1	1	2	3	2	2
CO2	1	2	1	2	-	1	1	2	2	1	1	1	2	1	2
CO3	1	1	2	2	-	2	1	2	2	1	1	2	2	2	1
CO4	1	2	1	2	-	2	2	1	2	2	1	2	2	2	1