



## Dynamics of Machinery and Vibration Lab

<b>Course Code:</b>	28708
<b>Credits:</b>	1
<b>Course Type:</b>	Practical
<b>Prerequisites:</b>	Dynamics of Machinery and Vibration
<b>Co-Requisite:</b>	-
<b>Course Length:</b>	34 hours

### Outlines:

#### Vibration Lab:

- Free & Forced Vibrations of Single Degree of Freedom System (SDOF)
- Free & Forced Torsional Vibrations of Shafts as SDOF or 2DOF Systems
- Translational & Rotational Vibrations under Harmonic Excitation
- Lateral Vibrations of Beams, Natural Frequencies and Mode Shapes
- Dynamic Vibration Absorber
- Whirling of Rotating Shafts

#### Dynamics of Machinery Lab:

- Simple Machines; Simple Gear System, 4 Bar Linkages, Geneva Wheel, Worm Gear
- Planetary Gear System
- Static and Dynamic Balancing of Rotating Masses
- Governors
- Gyroscope
- Balancing of Rotating Masses of a Double or Four Cylinder Engine
- Kinematics of Cams with Roller and Flat Faced Followers
- Clutch

### Reference:

- Laboratory Booklets, prepared by: M. Hoviattalab and M.T. Omidvar