



Dynamics of Machinery and Vibration Lab **(Dynamics & Vibration Lab)**

Course Code: 28708
Credits: 1
Course Type: Practical
Prerequisites: Vibration
Qo-Requisite: -
Course Length: 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. Hoviatlab and M.T. Omidvar