

## UNIVERSAL VIBRATION APPARATUS (EE-1582)

The apparatus provided comprehensive unit to perform the vibration experiments .A universal frame is provided upon which quick and easy assembly of various experiments can be done. The students can easily assemble the experiments and study the theory of vibrations practically.

### SCOPE OF EXPERIMENTATIONS:

Following experiments can be performed with this unit:

- To verify the relation simple pendulum.
- To verify the relation of compound pendulum & to determine the radius of gyration.
- To study radius of gyration of bi-filar suspension.
- To study the undamped forced vibration of spring mass system.
- To study the damped forced vibration of spring mass system.
- To study the longitudinal vibration of helical coiled spring.
- To study the undamped forced vibration of simply supported beam.
- To study the damped forced vibration of simply supported beam.
- Undamped torsional vibrations of single rotor system.
- Undamped torsional vibrations of double rotor system.
- To study the damped torsional vibration of single rotor system and to determine the damping co-efficient.

### UTILITIES REQUIRED:

- Floor Space : 2.5 m x 2.5 m approx.
- Power Supply : 230 VAC, 5 Amp. with earth.

### TECHNICAL DETAILS:

- RPM measurement
- Digital RPM Indicator with Proximity sensor.
- The set-up also consists of exciter unit with FHP Motor and speed controller, ordinary strip chart recorder and damper

