कंपन एवं आवाज नियंत्रण प्रयोगशाला

Vibration and Noise Control Lab

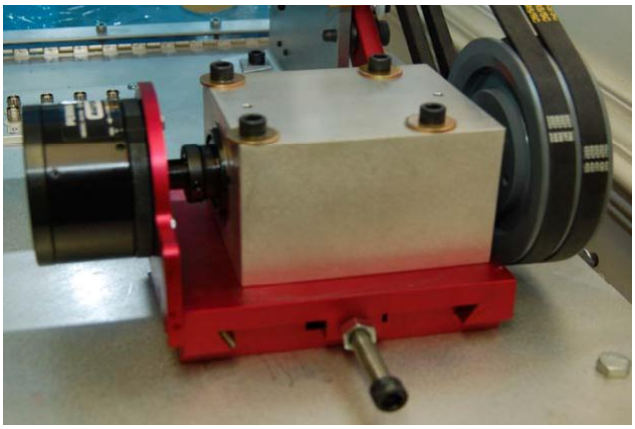
Major Equipments:

1- Whirling of shaft apparatus.

2- Universal vibration apparatus

3-Sound Level meter

4- Fault Diagnosis simulator



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Vibration and Noise Control Lab

SAFETY AND SECURITY RULES TO BE FOLLOWED IN LABORATORY:

1. Always wear shoes before entering in the lab.
2. Do not touch anything without the permission of instructor/ lab assistant.
3. Read carefully the lab manual before performing experiments.
4. Do not tamper measuring instruments.
5. Do not open the casing of the equipment.
6. Switch off the power supply to the experimental setup on completion of the experiment.
7. Maintain clean and orderly laboratories and work area.
8. Be aware of the various experiment controls (start button, stop button, speed control) for each experiments.
9. Do not leave experiments running unattended.
10. Any injuries should be reported immediately for proper care.

GENERAL INSTRUCTIONS

1. Enter in lab with closed footwear.
2. Boys should tuck in the shirts.
3. Long hair should be protected, let it not be loose specially near rotating machineries.
4. Any other machines/ equipments should not be operated other than the prescribed one for that day.
5. Power supply to your test table should be obtained only through the lab technician/ instructor.
6. Read carefully the lab manual before performing experiments.
7. Do not lean and do not be close to the rotating components.
8. Tools, apparatus and gauge sets are to be returned before leaving the laboratory.
9. Headings and detail should be neatly written:
   (i) Aim of the Experiment.
   (ii) Apparatus/Tools/Instruments Required.
   (iii) Procedure / Theory / Algorithm/ Program.
   (iv) Model Calculations.
   (v) Neat Diagram/ Flowcharts.
   (vi) Specification / Design Details.
   (vii) Tabulation.
   (viii) Graph.
   (ix) Result / Discussions.
10. Before doing the experiment, the student should get the circuit/ program approval by the faculty in charge.
11. Experiment date should be written in the appropriate place.
12. After completing the experiments the answer to the viva voice questions should be neatly written in the workbook.

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Vibration and Noise Control Lab

(BMEL/BAUL-801)

List of Experiment:

1. Determination of Critical Speed in Whirling of Shafts.
2. Determination of Natural Frequency in Longitudinal Vibrating System.
3. Determination of Natural Frequency in Torsional Vibration System.
4. To verify the relation of compound pendulum & to determine the radius of gyration
5. To study the undamped free vibration of spring mass system.
6. To study the forced vibration of simply supported beam for different damping.
7. Undamped tensional vibrations of single and double rotor system.
8. To study the damped torsional vibration of single rotor system and to determine the damping coefficient.
9. To study the forced damped vibration of spring mass system.
10. Study the machine fault diagnostic system based on vibration analysis.
11. Measurement of Noise.