6ME4-22: VIBRATION LAB.

1.To verify relation T = 2π (l/g) for a simple pendulum.- https://youtu.be/imgqRmn860A

2 To determine radius of gyration of compound pendulum.- https://youtu.be/SZYMJJ3rFC4

3 To determine the radius of gyration of given bar by using bifilar suspension. - https://youtu.be/oYkBjEdtK1Q

4 To determine natural frequency of a spring mass system. - https://youtu.be/FJBPNJR2QJU

5 Equivalent spring mass system. - https://youtu.be/FJBPNJR2QJU

6 To determine natural frequency of free torsional vibrations of single rotor system. i. Horizontal rotor ii. Vertical rotor - https://youtu.be/-zqST_jskVc

7 To verify the Dunkerley's rule.- https://youtu.be/A8HJNJu89Ec

8 Performing the experiment to find out damping co-efficient in case of free damped torsional vibration - https://youtu.be/EcE2JM6bRAc

9 To conduct experiment of trifler suspension. - https://youtu.be/DTZQVDYa1pI

10 Harmonic excitation of cantilever beam using electro-dynamic shaker and determination of resonant frequencies. - https://youtu.be/wY8-0Iufwrc

11 Study of Vibration measuring instruments.- https://youtu.be/dQY6kLcFMQ4

12 Perform study of the following using Virtual Lab - https://youtu.be/1q1ABrPCQQ4

13 Forced Vibration of a Cantilever Beam with a Lumped Mass at Free End: To calculate the natural freq and damping ratio for forced vibration of a single DOF cantilever beam system, experimentally; and compare the results with theoretical values. - https://youtu.be/7IeJgDSQkaw

14 Harmonicaly Excited Forced Vibration of a Single DOF System: To analyze the forced vibration response of a single DOF system at diff damping ratio and frequency ratio. -- https://youtu.be/wY8-0Iufwrc

15 Perform study of the following using Virtual Lab- https://youtu.be/1q1ABrPCQQ4

16 Forced Vibration of a Cantilever Beam with a Lumped Mass at Free End: To calculate the natural freq and damping ratio for forced vibration of a single DOF cantilever beam system, experimentally; and compare the results with theoretical values. -.- https://youtu.be/dQY6kLcFMQ4

17 Harmonicaly Excited Forced Vibration of a Single DOF System: To analyze the forced vibration response of a single DOF system at diff damping ratio and frequency ratio.- https://youtu.be/wY8-0Iufwrc