

## Earthquake Engineering Research Centre International Institute of Information Technology Gachibowli, Hyderabad – 500 032, India

## Manual:

**Observation 1**: Effect of time period on maximum response

1. Run the experiment with default ground motion and building parameters

2. Observe the response and note down the maximum response.

3. Repeat the experiment by changing the values of mass of the structure. (Note: Change in mass will change the time period of the structure)

4. Note the maximum response.

5. Plot the graph between the maximum response and the time period of the structure.

**Observation 2**: Effect of resonance without damping

6. Select Resonance from the list of earthquakes. And set damping to Zero

7. Run the experiment and note the displacement.

8. Response value increases and reaches peak when forcing frequency is nearing natural frequency of the structure.

9. Draw the plot between maximum response and frequency ratio.

**Observation 3**: Effect of resonance with damping

10. Select Resonance from the list of earthquakes. And set damping to Zero

11. Run the experiment and note the displacement.

12. Response value increases and reaches peak when forcing frequency is nearing natural frequency of the structure.

13. Draw the plot between maximum response and frequency ratio.

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