

Assignment 2012-2 Evaluate responses of a SDOF system subjected to a recorded ground acceleration during the 1995 Kobe earthquake (May 22, 2012, Submit by May 29, 2012)

- 1) Using a software given in the form of EXCEL sheet (LDRA-2(1)), compute response of the following SDOF system under a ground acceleration which was recorded at the Kobe Observatory of Japan Meteorological Agency during the 1995 Kobe earthquake. Download LDRA-2(1) from
- 2) Compute absolute response acceleration, relative response velocity and relative response displacement by varying damping ratio as 0.02, 0.05 and 0.1, and plot them so that the effect of damping ratio can be presented.

$$m = 150kN / g = 150 / 9.8$$

$$\xi_r = 0.02, 0.05, 0.1$$

$$k = 3050.9kN / m$$



