



VIRTUAL SMART STRUCTURES AND DYNAMICS LAB

Experiment 1

**Vibration Characteristics of Aluminium Cantilever Beam
using Piezoelectric Sensors**

POST EXPERIMENT QUIZ QUESTIONS

- 1) Plot the voltage response in time domain in MS Excel.
- 2) Using Matlab convert the voltage response from time domain to frequency domain and plot the graph.
- 3) Calculate the natural frequency of the beam from the frequency plot.
Take atleast 5 graphs.
- 4) Calculate the damping ratio using Half Power Band method.
- 5) Compare the values of damping ratio (experimental) with that of theoretical value.