DEPARTMENT OF CIVIL ENGINEERING





VIRTUAL SMART STRUCTURES AND DYNAMICS LAB

Experiment 5

Piezoelectric Energy Harvesting and Structural Health Monitoring using Thin Surface Bonded PZT Patches

PRE EXPRIMENT QUIZ QUESTIONS

- 1) What is piezoelectricity?
- 2) What is piezoelectric energy harvesting?
- 3) What is structural health monitoring (SHM)?
- 4) What are the possible applications of energy generated by piezoelectric effect?
- 5) What is the order of magnitude of energy harvested by piezoelectric effect in Watts?
- 6) How electro-mechanical impedance (EMI) technique can be used for SHM?
- 7) What is root mean square deviation (RMSD)?
- 8) What are the salient features of Keysight 4980 LCR meter and AD5933 as far as SHM is concerned?
- 9) What input energy is needed for one time operation of Keysight 4980 LCR meter and AD5933?