



Universidade do Porto

FEUP Faculdade de Engenharia

WEEKLY REPORT

25TH APRIL – 29TH APRIL

TASKS PERFORMED / TOPICS STUDIED:

- Development of a FFT algorithm to calculate the fundamental vibration frequency of a structure using the data gathered by the accelerometers;
- Update of all the UML diagrams with all the modules and structures used by the communications protocols;
- Initial development of the “Master’s” states machine;
- Design and initial testing phase of the signal conditioning circuit for the resistive strain gauge sensors.

BIBLIOGRAPHY REVISED:

- “Numerical Recipes: The Art of Scientific Computing” by William H. Press, Saul A. Teukolsky, William T. Vetterling and Brian P. Flannery;
- “The Bonded Electrical Resistance Strain Gage” by William M. Murray and William R. Miller;
- Analog Devices – AD623 datasheet.