

EE 1130

Freshman Eng. Design for Electrical and Computer Eng.

Class 5

Signal Processing Module (DSP).

- Directions to create a report document.

Project Document

- A good project document should include:
 - Cover.
 - Contents index.
 - Introduction: (what are you going to do).
 - Problem approach: (how are you going to do, what mathematical approach, equations are you going to use).
 - Lab. Result:s (results of simulation, add block diagrams, figures, explanation of each figure and block).
 - Conclusions: (what you have learned, future work).
 - References: (if you copied, please reference the source)
 - Appendix: put Matlab code here, if applicable.

Project Document

- Cover.
 - Name.
 - Course and section.
 - Trimester (WI12).
 - Professor.
 - Date.

Project Document

- Contents index.
 - Document contents:
 - Introduction-----2.
 - Problem approach-----3.
 - Lab. Results.
 - Conclusions.
 - References.
 - Appendices.

Project Document

- Introduction
 - What is this module about (DSP, signal processing, filter unwanted signals, or noise, extract information from noisy signals).
 - Explain what Signal Processing (search the web). What are the uses of Signal Processing. When citing a reference [1].
 - Obtain what kind of jobs for Signal Processing Engineers.
 - How much is the salary.

Project Document

- Problem Approach
 - How did we model an electrical circuit RC.
 - How did we find the diff eq
 - How we simulate with Matlab-Simulink.
 - Explain al blocks needed etc.

Project Document

- Lab. Results.
 - What we found in the simulations.
 - Show the figures and the results.
 - Comments to the figures (the noise was eliminated, what happened to the signal).

Project Document

- Conclusions.
 - Summary of what we did.
 - What we learn.
 - What interesting aspects you found.

Project Document

- References.
 - [1] Try to write in IEEE format.
 - [2] B. Klaus and P. Horn, Robot Vision. Cambridge, MA: MIT Press, 1986.
 - [3] L. Stein, “Random patterns,” in Computers and You, J. S. Brake, Ed. New York: Wiley, 1994, pp. 55-70.
 - [4] R. L. Myer, “Parametric oscillators and nonlinear materials,” in Nonlinear Optics, vol. 4, P. G. Harper and B. S. Wherret, Eds. San Francisco, CA: Academic, 1977, pp. 47-160

Project Document

- Appendices.
 - Here we put software code (C++)
 - Copy of downloaded documents (manuals, technical sheets, etc)

Project Document

- Algunos de los conceptos arriba indicados en Español:
 - Explicar que es lo que se va a diseñar (ejemplo: un sistema de proceso de señal que limpia la señal de rizado que está contaminando mi señal de interés) (c,e).
 - Explicar que es lo que se espera que haga el sistema (c,e).
 - Buscar en internet el impacto de proceso de señales en la sociedad, que tipos de problemas resuelve? (h).
 - Señalar como se hizo la búsqueda por internet, que herramientas y que documentos de referencia se usaron (i).
 - Buscar en internet información acerca de empleos en Signal Processing, que tipo de trabajo y salario en la actualidad.

End of Class