**Project Reporting Requirements**

# Objective

As a partial fulfillment of the **EEE5653-1740 & 5654-1257** course requirements, each project group is assigned to write a project report in accordance with the specifications below.

# Project Report Write-Up Requirements

# Outline

* + 1. **Cover page**

Use this embedded file 

* + 1. **Executive Summary**
    2. **Table of Contents**
    3. **Introduction**
    4. **Body of the report**

The information below is based on the contents of the “5653-1740 & 5654-1257 Final Project Requirements - 12.05.23.pptx” PowerPoint document hereby embedded as 

* + - 1. **Project Requirements**

For each of both filters assigned to your group, describe the following:

* + - * 1. Original Requirements as defined in the “Project\_Requirements\_28NOV23.xlsx” document hereby embedded as 
        2. How you adapted the original requirements to the Simulink filter block menu.
        3. Finalized requirements compatible with the Simulink filter block menu.
      1. **Project Activities**
         1. **Filter Performance Analysis per Activity 2** (see Slide 5 of the reference PowerPoint document)

**Simulink setup**

Make a statement to introduce and copy/paste Figure 1.

**Filter 1 Performance**

**Determination of the filter’s transfer function through time-domain data capture**.

**Test Setup**

In referring to Figure 1, specify the signal generator and the measuring instrument you use for this study.

**Data Capture**

*Describe how you captured the data (see Slide 13 of the* reference PowerPoint document)

**Filter’s transfer function**

*Describe the data processing you went though and display your result.*

**Comparing the obtained with the Simulink Filter Response.**

*Quantify the dB differences between both graphs over 3 frequency points where they differ most.*

**Determination of the filter’s transfer function through frequency-domain data capture**.

**Test Setup**

In referring to Figure 1, specify the signal generator and the measuring instrument you use for this study.

**Data Capture**

*Describe how you captured the data (see Slide 17 of the* reference PowerPoint document)

**Filter’s transfer function**

*Describe the data processing you went though and display your result.*

*Specify what theorem is used to justify the validity of*

**Comparing the obtained with the Simulink Filter Response.**

*Quantify the dB differences between both graphs over 3 frequency points where they differ most.*

**Filter 2 Performance**

Follow all the steps defined for Filter 1.

* + - * 1. **Filter Performance Analysis per Activity 3** (see Slides 21 through 24 of the reference PowerPoint document)

**Simulink setup**

Make a statement to introduce and copy/paste figure 1 in Slide 21.

**Filter 1 Performance**

**Narrow Band Noise Protection Analysis**

Describe all six steps specified in Slide 22, display your results, and provide comments as required or as desired.

**Broad Band Noise Protection Analysis**

Describe all six steps specified in Slide 23, display your results, and provide comments as required or as desired.

**Comparison of Narrow Band (NB) Broad Band (BB) Noise Filtering**

Provide the results of your comparisons as specified in Slide 24.

* + - 1. **Difficulties**

Provide a list of the difficulties you encountered and what did you do to turn them around.

* + - 1. **Lessons Learned**

Make a statement what you learned from this project and what improvement you would suggest for future students.

* + - 1. **Conclusion**
    1. **References**

# Fonts

* + 1. Text editor: Microsoft WORD
    2. Type: choose from Arial, Helvetica, Tahoma, and Verdana
    3. Size: unless otherwise specified below, the standard size is 12.
    4. Line spacing: 1.5 lines.
    5. Color: black. Colored fonts and/or highlighted background should be avoided. However, they are only authorized on a punctual basis and should not exceed 10% of the text.

# Page Setup

Margins

* Top: 0.7”
* Bottom: 0.7”
* Left: 0.9”
* Right” 0.7”
* Gutter: 0”

Orientation

* Portrait

Paper

* Paper size: Letter
  + Width: 8.5”
  + Length: 11”

Layout

* Headers and footers from edge
  + Header: 0.5”
  + Footer: 0.5”

# References

1. **Pointers**
   1. Any idea/data/graph/picture from outside sources (e.g. book, magazine, Internet) needs to be identified by the same standardized pointer both in the text and in the bibliography/reference list.
   2. Each pointer is an integer number in between brackets written in increasing order according to the sequence of its introduction in the text (e.g. [1] refers to the first reference, [2] to the second, and so on…)
2. **Reference Page**

The last page of the paper gives the full bibliographic information for all the sources cited. This page is labeled References and includes a double-spaced, alphabetical list by the author’s last name of all the sources used in the paper.

1. **Format**
   1. Begin each entry flush with the left margin with the pointer number in between bracket.
   2. Adhere to the following:

* Double space between all lines on the references page.
* Use one space following each word and punctuation mark in an entry.
* With book and article titles, capitalize only the first letter of the title.
* Use italics for titles of books and periodicals, not underlining.
  1. List each entry alphabetically by the last name of the author, or, if no author is give, by the title (disregarding A, And or The). For work with multiple authors, use the name of the first author listed in the publication.
  2. Shorten first and middle names of an author. For a work with more than one author, use an ampersand (&) before the final author’s name.
  3. For publisher locations, use the full city name plus the two letter U.S. Postal Service abbreviation for the state.

1. **Specific Reference List Entries:**

For electronic resources, include the same elements in the same order that you would for a print copy. Include retrieval information as needed to assist those accessing your source. Retrieval information is unnecessary when citing an often-used database. The URL should be included when citing an obscure database. Retrieval dates are unnecessary unless the information may change over time.

Recent periodicals (journals, magazines, & newspapers) and even books may be assigned a DOI (Digital Object Identifier) that identifies and links to the source as well as replacing the URL as a reference. The DOI is a long string of numbers beginning with a 10. It looks like the following: doi: 10.1037/0278-6133.24.2.225. The DOI is usually found on the first page of the electronic article near the copyright notice. The *Publication Manual of the American Psychological Association* recommends using a DOI when available for both electronic and print sources.

**A book with one author, print version**: Include in this order, the author’s last name and first initial, the year of publication in parenthesis, the book title in italics, and the publication information. Capitalize only the first words of titles and subtitles, as well as proper names.

**[1]** Boorstin, D.J. (1992). *The creators: A history of heroes of the imagination.* New York:

Vintage Press.

Electronic version of print book----no DOI

**[2]** Darwin, C. (1859). *The origin of the species.* Retrieved from http://www.gutenberg.org/etext/2009

**A book with more than one author**: Include all the author’s names (in the order listed on the title page).

**[3]** Fisher, R., Ury, W., & Patton, B. (1991). *Getting to yes: Negotiating agreement without giving in.* New York: Penguin.

**A work by an organization or group (also known as a corporate author):**

**[4]** American Psychological Association. (2001). *Publication manual of the American*

*Psychological Association.* Washington, D.C.: American Psychological Association.

**An edited book**:

**[5]** Barkley, L., Axelrod, R.B. & Cooper, C.R. (2001) (Eds.). *Sticks and stones and other student essays.* (Eds.). Boston: Bedford/St. Martin’s.

**A selection from an edited collection or anthology**: The selection title is not underlined, put in italics, or put in quotation marks. Include inclusive page numbers, preceded by pp.(in parentheses).

**[6]** Ngo, L.K. (2001). Cannibalism: It still exists.In L. Barkley, R.B. Axelrod, & C.R. Cooper (Eds.), *Sticks and stones and other student essays* (pp. 70-74). Boston: Bedford/St. Martin’s.

**An article in a reference book, print version:**

**[7]** Holmes, R. (Ed.). (2001). French Foreign Legion. In *The Oxford companion to military history* (pp. 328-329). Oxford: Oxford University Press.

An article in a reference book, online version with author

**[8]** Allaby, M. (2004). Absorption spectrum. *Encyclopedia.com.* Retrieved from

http://www.encyclopedia.com/topic/absorption\_spectrum.aspx

An article in a reference book, online version with no author

**[9]** Thesaurus. (2009). In *Microsoft Encarta Dictionary*. Retrieved from

http://encarta.msn.com/encnet/features/dictionary/dictionaryhome.aspx

**An article in a printed journal**

**[10]** Fine, M.A., & Kurdek, L.A. (1993). Reflections on determining authorship credit and authorship order on faculty-student collaborations. *American Psychologist*, *48*(7), 1141-1147.

An article in an online journal without a DOI

**[11]** Anderson, A. (2006). Advice for first time buyers. *Kiplinger’s Personal Finance Magazine,*

*60(5).*

**An article in an on-line journal with DOI:**

**[12]** Swann, W.B., Jr., Sellers, J.G. & McClarty, K.L. (2006). Tempting today, troubling tomorrow: The roots of the precarious couple effect. *Personality and Social Psychology Bulletin*, *32*(1), 93-103. doi: 10.1177/-146167205279584

**An article from a website:**

**[13]** New child vaccine gets funding boost. (2001). Retrieved March 21, 2001, from <http://news.ninemsn.com/au/health/story_13178.asp>.

**An article from a searchable database**

If the DOI number is not shown, reference the article as a print article. Include the name of the database only if the source is rare, a print version is difficult to locate, or the material is only available on a small number of databases. No retrieval date is necessary for content that is not likely to be changed or updated.

**[14]** Murray, D., Moore, R., Johnson, T., & Keeler, P. (2006). Coping with skill loss among the aging recreational softball player. *Gerontological Studies Quarterly, 16*(2)*,* 167-180.

**OR**

If the DOI is shown, include that.

**[15]** Swann, W.B., Jr., Sellers, J.G. & McClarty, K.L. (2006). Tempting today, troubling tomorrow: The roots of the precarious couple effect. *Personality and Social Psychology Bulletin*, *32*(1), 93-103. doi: 10.1177/-146167205279584

**An article from a newspaper:**

**[16]** Samuelson, R.J. (2003, September 22). The creaky job machine. *The Detroit News,* p.A44.

**An article from an online newspaper**:

**[17]** Adams, M., & Riruis, L. (2007, May 15). Are steroids a problem on the sandlot? *St. Paul Pioneer Press*. Retrieved from www.pioneerplanet.com

Podcast

**[18]** Fogarty, M. (host). (2009, July 3). *Why are British and American English different?* [Audio

podcast]. Retrieved from http://grammar.quickanddirtytips.com/

Data Set

**[19]** Centers for Disease Control and Prevention. (2009). *AIDS public information data in the United*

*States for the years 1981-2002* [Data file]. Retrieved from

*http://wonder.cdc.gov/AIDSPublic.html*

Personal Communication: cited in text only

**[20]** P.T Bancroft (personal communication, July 6, 2009)