ELEC6003/COMP6029

MSc Dissertation Writing

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MSc Project Milestones

- 3rd Sept: Practical work finished
- Sept: Demonstration to your examiners
- 24th Sept: Dissertation Submission

Anatomy of a Good Dissertation

- Abstract
- Background [Other Peoples Work]
  - Literature Review
  - Summary of Related Work
- Work/Experiments/Research [All Your Work]
- Finish [All Your Work]
  - Comparison/Review of your work
  - Further work
  - Conclusion

Abstract

- Comes first but written last!

Background

- None of your work here
- All of other peoples work here
- Use this section to explain your project:

  WHY DO IT and ITS FOUNDATIONS
- If you don't know why your project matters or is important find out NOW!

Work/Experiments/Research (1)

- All of your work here
- None of other peoples work here
- This section of the project explains what you did and what you found out
- All references should be to sections in the background
- No conclusions here

Work/Experiments/Research (2)

- Order experiments with results:

1. Experiment A (How did I do it)
2. Results from A (What did I see?)
3. Experiment B
4. Results from B
5. ….

- No conclusions here!

Work/Experiments/Research (3)

MOST IMPORTANT

Include *all* your work

Don’t leave things out you think are not good or are simple

Finish (1)

- Comparison/Review of your work
  - How did Experiment A compare to B?
  - How did they compare to other work?
- Further work
  - What would you do in the next month to make it better?
  - What would you do in the next year/10 years to make it better?

Finish (2)

- Conclusion
  - What did I achieve?
  - What does it mean/do?
- Again only refer to your Background section here

What now?

What do I do in the next week?

- Write a detailed table of contents:
  - 1 paragraph per chapter
- Write the Results/Work chapter
  - Make it complete
  - As good as you can make it
- Email these to your supervisor for advice

What does my supervisor do?

- Reads the detailed table of contents
- Reads the chapter
- Provides advice to guide the rest of your thesis

Now what do I do?

MOST IMPORTANT

Take the advice

Don’t think you are better than your supervisor – do what they say

General Hints

The Mark Scheme

- The marking scheme covers six main areas:
  - Project management & planning
  - Technical approach
  - Testing & evaluation
  - Achievement & challenge
  - Writing & literature
  - Understanding
- You need written **EVIDENCE** of each area in the dissertation to get the marks

MOST IMPORTANT

If it isn't in your dissertation you won't get marks for it

Writing a Good Dissertation (1)

- Be **CLEAR** what is your work
  - It's best to do this by writing a background chapter for other people's work and use the rest for yours
- Get your report read. If someone can't understand it without help then it needs to be better! (unless they are being silly)

Writing a Good Dissertation (2)

- Don’t waffle or add in pointless diagrams
- Get the chapter and table of contents to your supervisor at least 2 weeks before the deadline otherwise:
  - He will not have time to check it
  - You will not have time to make needed corrections
- **Don’t leave it to the last minute!**

Choosing a Theme

- Pick a font type and size and don't change it!
- Don't overuse **bold** or *italics.* Just where necessary
- Be **consistent** in minor details:
  - e.g. Do (or don't) all bullet points have a full stop?
  - Capitalizations of chapter headings, subheadings, figure and table captions, etc.
  - Sequential and consistent figure numbers (1,2,3..)

What is Plagiarism?

Plagiarism is using someone else's work…

…without indicating that it is not your own
…without crediting the original author

- In some countries/cultures students may expect to copy
- Teachers may want students to repeat exactly what is in text books or lecture notes.
- At the University of Southampton, however, all work you submit for marking must be your own original creation

Range of Penalties

- Your mark for the affected work may be reduced
  - for example, by ignoring any plagiarised material
- A mark of zero may be returned
- You may fail the whole module
- You may fail the whole year
- Your degree classification may be reduced
- Your studies may be terminated
- You may be deprived of a degree
  - even after it has been awarded

How to Avoid Plagiarism

1. Quote any material copied from elsewhere
   - It may be appropriate to paraphrase rather than copy and quote, as discussed below
2. Follow the quotation (or paraphrased material) with a citation such as [3] which clearly identifies an item in your bibliography
3. Put the bibliography at the end of your report
   - This must give bibliographic details such as title, author, and year for each source you have cited
4. You must do this for all sources

Outside Help

- Occasionally you may ask a friend for help
- They can go through the material with you, and try to clarify any misunderstandings, but what you submit must be your own work
  - You must be able to explain it when asked to do so
- If you copy or paraphrase some material from your friend's solution you must declare this
  - This is my own work except for <material> which I have copied from <friend>
- Similarly if you download code from the Internet
  - This is my own code except for <class/method> which I have downloaded from <Internet site/author>

Collaboration and Collusion

- Occasionally when you have worked on a problem together it is difficult to know who should get the credit – this is *collaboration*
- You should also declare
  - This is my own work except for <material> which <friend> and I developed together
- If you don't declare your collaboration, this is called *collusion* which will be treated as a breach of academic integrity

Some ways we Detect Plagiarism

- Computer based scanning
  - Checks the Internet (Wikipedia, etc.)
  - Previous projects from Southampton
  - Previous projects from other Universities
  - Current projects from Southampton
  - …..
- A perfect paragraph in the middle of average English
- Obvious theft of photos and diagrams
- Thorough knowledge of papers in the field
- Student has no answers when questioned about an area that is in their report

Practical Guide: Diagrams (1)

- Look at the diagram on the right. What is wrong with it?
- Diagram Stolen
- Solution: Redraw
- No Reference

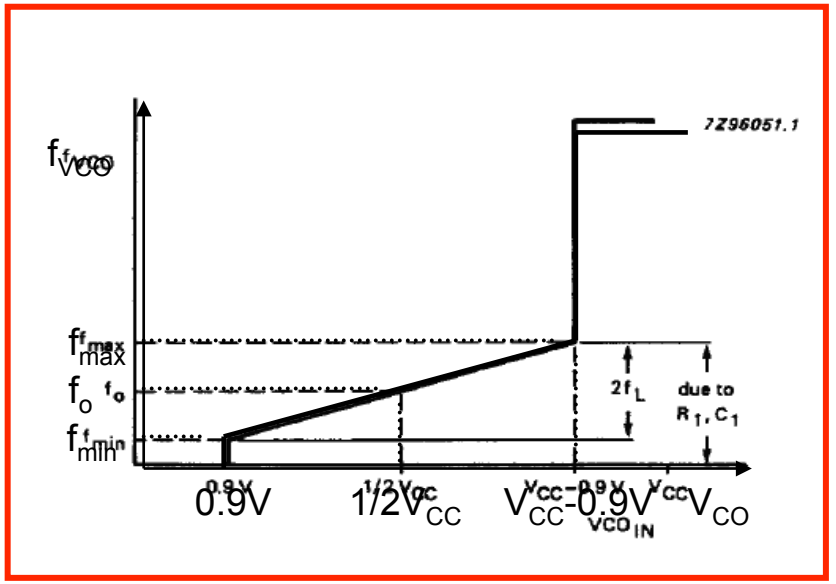


Figure 4.2: Frequency Characteristic [1]

8.0 References

[1] Analog Devices Datasheet, 2006, http://….

Practical Guide: Diagrams (2)

- Look at the diagram on the right. What is wrong with it?
- Diagram Stolen
- What is the point?
  - Unless your project was building that FPGA board, what is this diagram for?

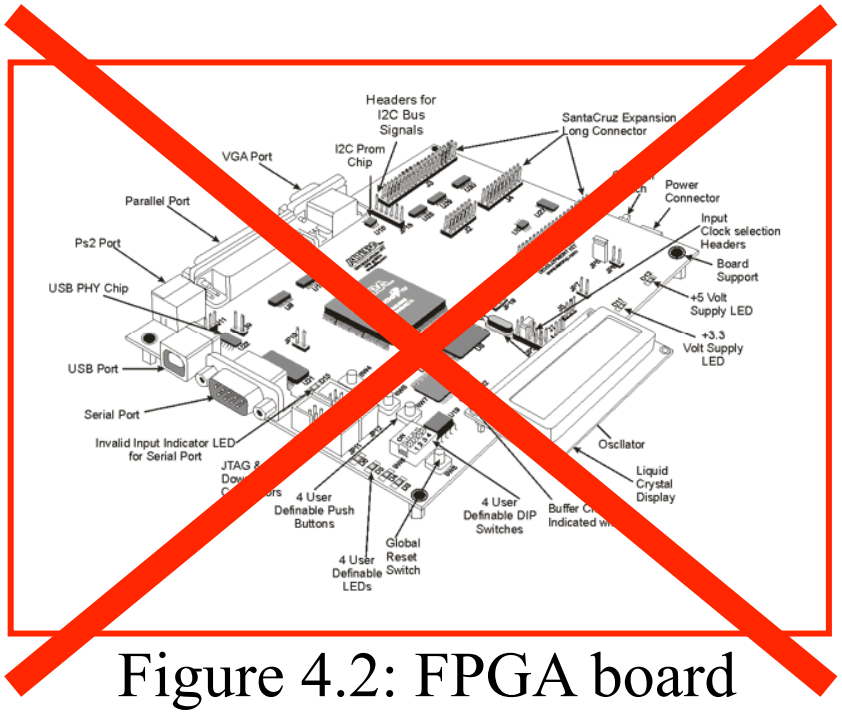
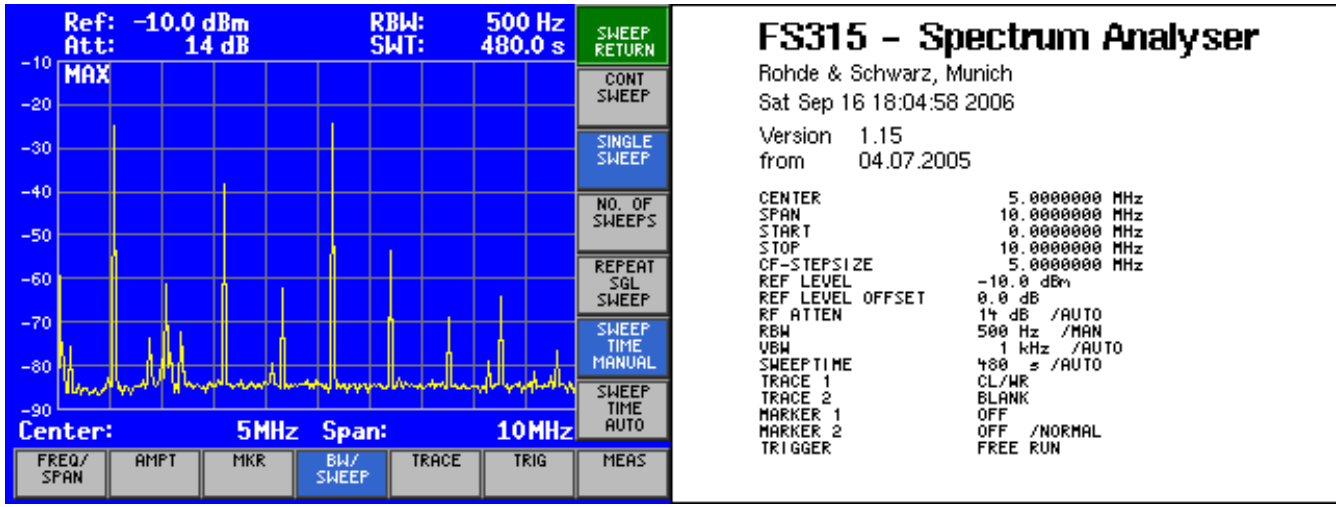


Figure 4.2: FPGA board

Practical Guide: Diagrams (3)



- Screen captures from instruments:
  - It is readable?
  - Is all the information I need to repeat the measurement somewhere?

Practical Guide: Diagrams (4)

- Minor points:
  - Can you read the labels? If not, fix!
  - Keep to the same label font!
  - Does the caption describe the diagram?
  - If you use colour, which is not recommended, remember to print the right pages in colour! (Keep a list)

Practical Guide: References

- References are not an “extra”, they are part of your report
- Be consistent and thorough. More references are better than less
- Try to reference printed material rather than webpages. E.g. Wikipedia cites sources, so go look them up!

Minor Points

- If using word, check all the page breaks for moved captions and diagrams
- After printing check every single page to ensure there are no printing errors
- Get a receipt, and keep it! In the very unlikely event that there has been a technical problem you will need it

Further Information

- Plagiarism slides are taken from *"Academic Integrity Talk"* by Andy Gravell, Micheal Kraft and Su White, 20th November 2006.
- University of Southampton Academic Skills Guides provides advice on academic integrity, and how to research, cite, and reference your sources
  - http://www.academic-skills.soton.ac.uk/
- University of Southampton Plagiarism Policy
  - Student Handbook
    http://www.studentservices.soton.ac.uk/studenthbk/plag.html
  - Calendar: Plagiarism and Cheating: Policy and Procedures
    http://www.calendar.soton.ac.uk/sectionIV/part8.html
- ECS Student Handbook
  - Section 3.1.2 Originality of Work
    https://secure.ecs.soton.ac.uk/ug/handbook/

Abstract

- Comes first but written last!
- Must describe your project quickly on its own
  - What you did
  - Why you did it
  - How successful was it?
- Must include numbers compared to other numbers!