

# Lab/Log Books, Final Reports, Demonstrations and Oral Examinations

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# Grading

## Logbook:

- Evidence of Management (50%),
- Clarity(40%),
- Evidence of Reflection(10%)

## Final Report:

- Organisation and presentation(10%),
- Writing quality (10%),
- Technical content and level (80%)

## Formal Demonstration/Presentation:

- Clarity of demonstration/presentation (50%),
- Technical achievement level (50%)

## Oral Examination:

- Communication quality of verbal responses (50%),
- Technical quality of verbal responses(50%)

# Lab/Log Books

- Keep them up to date and make sure your supervisor has been checking and signing it regularly.
- Take the advice your supervisor gives you regarding the logbook.
- There is still time to improve your logbook from now on even if to date you have not been keeping a good logbook.
- Remember you should put all your thoughts, plans, ideas, designs, results (or filenames) in your logbook.

# Final Reports

This report gives a full account of your project work. It will be read by your supervisor and second examiner, and will form the basis for the subsequent oral examination. It is important that you discuss the format and structure of this report with your supervisor before writing it. You should make a copy of this report for yourself, as well as submitting two copies. Here are some guidelines for the report (see also section 7).

***Length:*** The maximum text length is 10,000 words. Diagrams, equations, pictures, and references are not included in this word count. In addition you are allowed appendices, but these should only be used if they add something useful to the report.

If your project is software oriented and has a lot of code, you are advised to put the code printout into a separate document or include a CD. The final report can then give an overview of the software, and summarise its performance.

In general the material of a report should be organised as follows:

*Title page (1 page)*

*Abstract/Summary (a page on its own) (1 page)*

*Table of contents (1 page)*

*List of symbols (optional) (1 page)*

*Main text (in as many chapters as are necessary) (30 to 40 pages)*

*Discussions and conclusions, including consideration of the use of the Gantt chart for project planning (1-3 pages)*

*Acknowledgements (1 page)*

*References*

*Appendices*

# Title/Cover Page

## ***Title***

(This should indicate the main subject of the report. It should be no more than seven or eight words long.)

***Your Name:***

***Registration Number:***

***Supervisors Name:***

## ***Abstract / Summary***

The report should begin with an abstract or summary of what the report, not exceeding 200 words. It should contain sufficient information for the reader to understand what the project is about, what work has been carried out and what the final outcome of the work was. The summary page should not be numbered, but all other pages are numbered consecutively.

## ***Table of contents***

The report should be subdivided into relevant sections. Each should be given a meaningful heading or subheading, and they should follow a numbering scheme.



## ***List of symbols***

This list defines the main symbols used in the report, especially acronyms and unusual meanings. The SI unit system is standard and should not be listed here.

## ***Main Text***

It should begin with setting the background area for the project (this will probably include references to source materials.)

What problem is being solved?

Why is this problem important?

After setting the scene, there should be a statement of project aims and objectives, and followed with a technical specification.

What are the key parameters?

What variability can they have?

Once the reader understands the specification, there should be sufficient introductory matter to enable the report to be readily understood without the need to refer back to other publications. Brief definitions of new or uncommon technical terms should be given here. It is important to discuss the design approach adopted in order to realise hardware and/or software solutions to meet the specification.

Related topics should be kept close together, and the relationships should be clearly indicated.

Explanations should be given in terms of what has already been revealed rather than in terms of what is to follow.

References should be given as close to the referred material as possible. You should précis important material and avoid long quotations, a reference to the original work being given instead.

The main text should include no more mathematics than is absolutely essential.

Extended mathematical treatment, if necessary, may be added as an appendix at the end of the report.

A detailed explanation of, for example, a standard circuit configuration or design technique or a lengthy digression, if it must be included, should also be put in an appendix.

Parenthetical remarks and footnotes which also distract the reader's attention from the main theme, should be brief and few.

## ***Tables, graphs and equations***

Results can often be displayed more effectively by means of graphs than by tabulation. But if a graph is say a straight line, the graph can be replaced by a simple statement, or equation.

Tables, graphs and equations should be integrated into the text, rather than appearing on separate pages. All tables and diagrams should have brief meaningful headings and should be numbered consecutively throughout both the main text and appendices.

If your word processor does not have the ability to produce tables, graphs or equations, they can be written or drawn with pencil. When photocopied, the appearance will be acceptable.

# Graphs and Figures

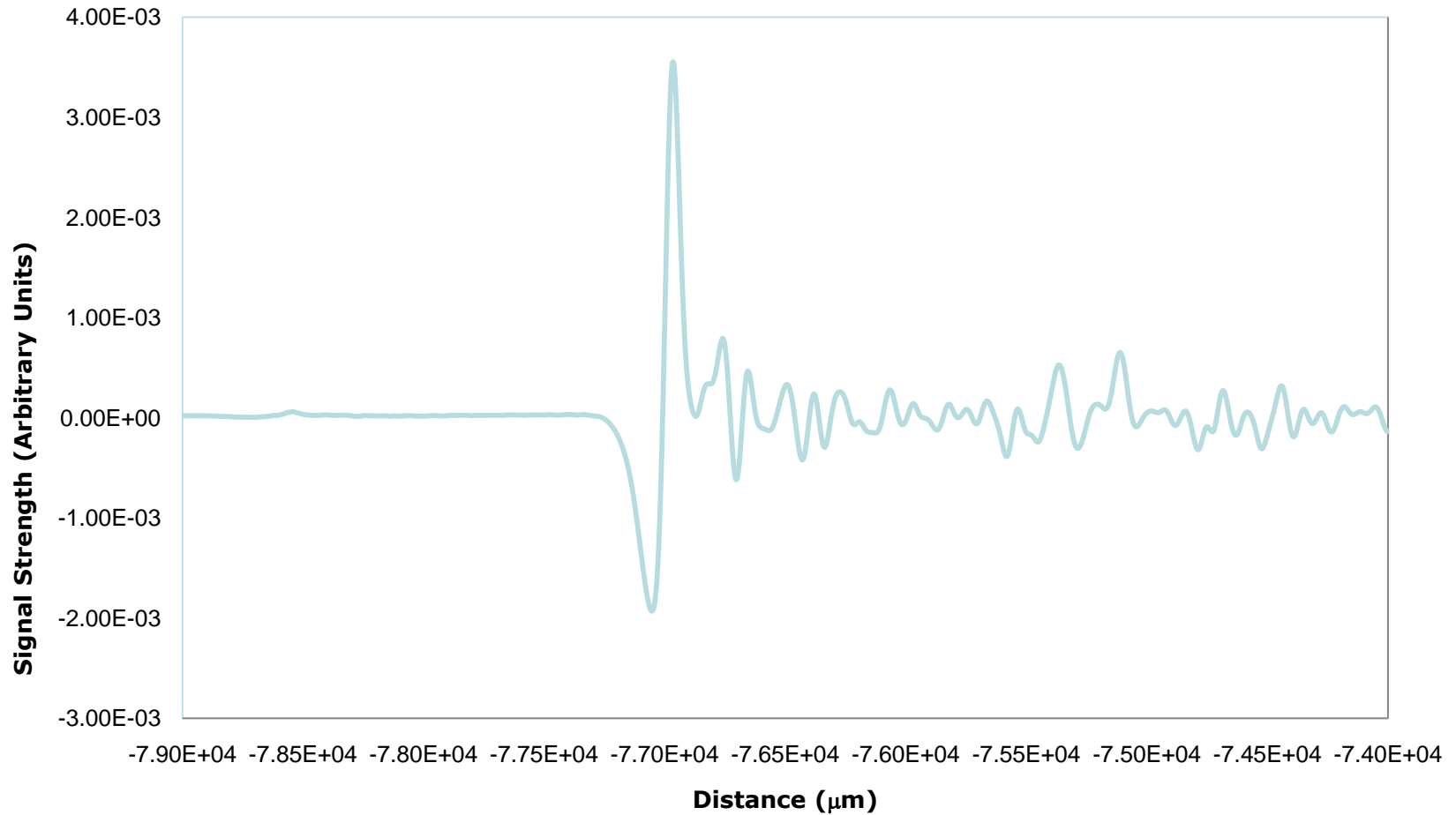


Figure 5.6: The THz impulse recorded from a 10μm gap GaAs

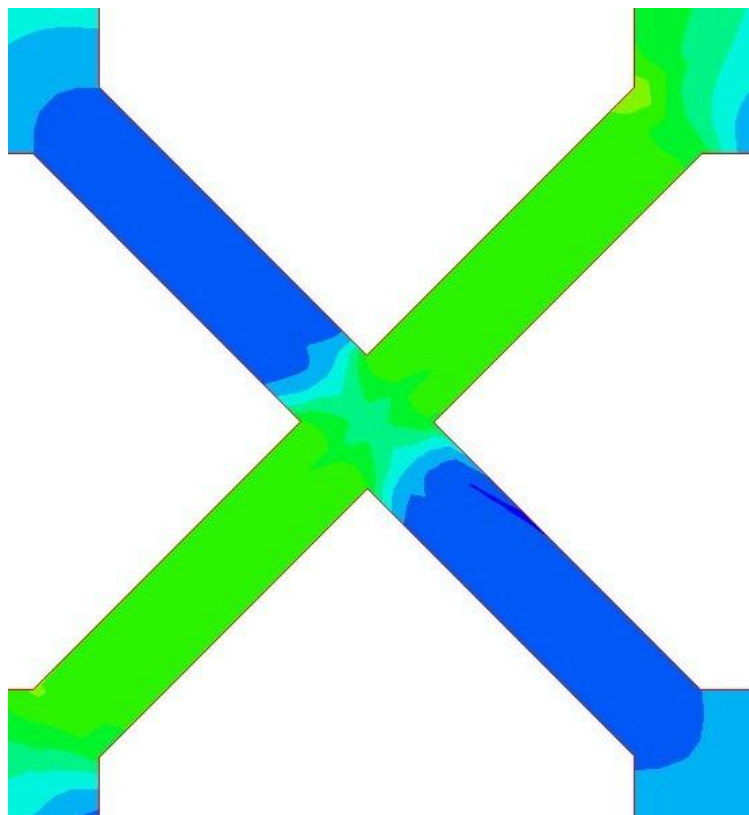


Figure 2.5: The electric field profile for a polarizing switching THz emitter simulated using Maxwell-SV

## ***Discussion/Conclusions***

In this section you should deduce general results about the project. For example, 'The design process X, using input data Y, predicted the performance Z. Experiments gave the actual performance as P, which closely agrees with Z. Therefore, the design was successful.'

Any unsuccessful or mysterious results should also be reported, and commented on. The discussion can also suggest more work to be done, perhaps by a student next year.

Finally, the conclusions should summarise the results and give your experience with using a Gantt chart. Was it helpful? Were you able to keep to schedule?

Where did the biggest discrepancies occur?

## ***Acknowledgements***

If material has been obtained from sources outside the University, for example from liaison with industry, the student may wish to make an acknowledgement. Acknowledgement to the supervisor is not required, but assistance from postgraduate or other undergraduates should be fully acknowledged.



## ***References (Use Endnote and IEEE Engineering)***

These should be numbered and listed in a special section entitled 'References', or if exhaustive, 'Bibliography', and indicated in the text by means of superior numerals ('Indices').

1 Badie, K., Shimura., Machine recognition of Roman cursive scripts. Proc. 6th Int. Conf. on Pattern Recognition, Munich 19-22 Oct. 1982. pp. 28-30.

2 Newman, W.M., Sproull, R.F., Principles of Interactive Computer Graphics (2ndEdition), McGraw Hill, ISBN 0-07-066455-2, 1981, pp. 45-46.

With the exception of the IEE and IEEE publications, the titles of periodicals should not be abbreviated. The references must be quoted with sufficient detail to enable a reader to go to the library and locate the article or request it through inter-library loan.

A complete and accurate list of references serves a double purpose: (i) it enables the student to acknowledge his/her sources of information, and (ii) it assists the reader to locate those sources and other relevant literature.

Page numbers should be given in references, to help the reader. Imagine the work involved if the reference is to a 450 page textbook, without any page numbers listed. It could take the reader a considerable time to track down an elusive equation, or diagram.