SDP REPORT
WRITING

Department of Electrical Engineering

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INTRODUCTION

• The purpose of an SDP report serves as a means of communicating your work to others
  ✓ It should clearly describe the technical work, why it was done, results obtained and implications of those results
• A well-written report allows the examiner/reader to quickly understand what has been accomplished
• The key to a well-written report is organization
UNIVERSAL ASPECTS OF ALL REPORTS

• The report should be written in a passive impersonal style
• Take exceptional care to spell correctly
• All diagrams must be neatly presented and should be computer generated (e.g. Microsoft Visio)
• Any information in the report that is directly quoted or paraphrased from a source must be cited
• Any reference material derived from the web must come from credible and documentable sources
  ✓ Wikipedia is NOT a credible reference
• All pages of the report must include the page number
UNIVERSAL ASPECTS OF ALL REPORTS (CONT’D)

• Textual references of figures and tables:
  ✓ Number and title all figures and tables
  ✓ Introduce figures and tables in your text in logical places and in logical ways
  ✓ Spell out the point that you want your reader to get from your figure or table

Example
As Figure 1 indicates, the proposed system consists of three main parts…
GATHERING MATERIAL

• Most of the necessary material will consist of:
  ✓ Your own ideas and experience gained while working on the project
  ✓ Your approach to solving the problem
  ✓ References to various resources

• Keep a notebook handy and record all relevant information:
  ✓ References (e.g. papers, books, websites,…etc.)
  ✓ Lessons learned
  ✓ Notes from meetings with your supervisor(s), potential end-users, technical experts,…etc.
STRUCTURING THE PROJECT REPORT

• All project reports consist of a main body surrounded by other information that support it in various ways
  ✓ Presented in appropriate formats
  ✓ Some of these are mandatory, others are optional
STRUCTURING THE PROJECT REPORT – MAIN BODY

1. Introduction – Tells the reader what the project is about. It should include:

- Brief statement about the subject and its importance
- Justification for dealing with the subject
- Aims and objectives of the project
- Methods employed to achieve these objectives
- The structure of the remaining parts of the report

The introduction is the **first impression** of you – so make it a good one.
2. Literature Review – Provides the readers with the information they will need to know in order to fully understand and appreciate the rest of the report. It should:

- Explain why the project is addressing the problem
- Indicate an awareness of other work relevant to this problem
- Show the reader that students have read, and have a good grasp of, the main published work concerning the subject area of the project work
3. Design Constraints and Standards – Constraints are restrictions on the project or design and must be identified during the early stages of the project. Examples:

- Time constraint: must be completed on a certain time
- Cost constraint: must be completed with a specific budget
- Technical constraints: limits of technology or available technology

- International/national standards related to the design must also be identified

- The designed system should also be evaluated in terms of compliance with the constraints and standards in the ‘Results and Evaluation’ Section
4. Design – The design description part will be the longest and most important part in the body of your report

- Use subsections to guide the reader through this section as it will be long and complex
- Identify possible solutions and analyze them
- Start with a block diagram that shows the major functions or layout of the selected solution
- Use subsections to drill down into each block
- Use additional block diagrams as needed
- Describe how the design is used
5. **Implementation** – The process of converting the design into something real

- Give details on how each block in your design has been implemented
- Justify the choice of components, software tools, communication protocols, etc.
- Do not attempt to describe all the code in the system, and do not include large pieces of code in this section
- Make use of pseudo codes and flowcharts
- Describe any problems that may have arisen during implementation and how you dealt with them
6. Results and Evaluation – Should describe to what extent the goals have been achieved

✓ Describe how you demonstrated that the systems works as intended or not
✓ Include summaries of the results of all critical tests that were carried out
✓ Describe the reasoning behind the tests to evaluate the results
✓ Critically evaluate your results, describing its strengths and weaknesses
✓ Evaluated in terms of compliance with the design constraints and standards
✓ Make the best use of methods for expressing results in a useful and informative manner (e.g. graphs, charts, tables, etc.)
7. Future work – This section is for expressing your unrealized ideas. It is a way of:

- Recording that ‘I have thought about this’
- Stating what could have been done if only time allows it

A starting point for someone else to continue the work
8. **Conclusions** – Should be a summary of the aims of the project and a restatement of its main results

- Do not introduce new material
- Briefly summarize, combine and reiterate the main points made in the main body of the report
- Present opinions based on them

Be honest and objective in your conclusions
STRUCTURING THE PROJECT REPORT – SUPPORTING MATERIAL

**Title page** – should include:

- The title of the project
- The degree title
- The name of the course
- The names of students
- The name(s) of the supervisor(s)
- Month and year of submission of the report

**Declaration Statement** – a signed statement that the project and report are the students’ own work except where specifically referenced.
STRUCTURING THE PROJECT REPORT – SUPPORTING MATERIAL (CONT’D)

Abstract Page – should:

✓ Be no longer than 400 words
✓ Give a summary of what the project is about and the outcome of the work

Acknowledgment – includes thanks to all people and organizations who have helped

Table of Content – gives a view of the detailed structure of the report, by giving section and subsection headings and associated pages

List of Figures/Tables – lists all figures and tables in the report with their page numbers

Glossary – consists of a list of all specialist vocabulary or acronyms with a brief explanation of their meanings
References*

✓ Cited evidence in the main body of your report must be referenced
✓ References should be in an identifiable referencing style
✓ IEEE referencing style is the style used in the Department of Electrical Engineering

• Don’t neglect references – you will lose marks if you don’t reference your sources properly

* Check the slides from ‘Plagiarism and Referencing’ Seminar for more details about referencing and the IEEE referencing style
Appendices – Appendices can be included if relevant, this could be:

- Extensive technical details or mathematical proofs, etc.
- Lengthy tables of data
- Copies of surveys
- Other documents you have written (e.g. user manuals, technical manuals)

- The appendices should not contain any of the source code for your software (will be submitted separately)
- Should be headed by letters in alphabetical order (i.e. Appendix A, Appendix B, etc.)
WRITING THE PROJECT REPORT

• Effective writing requires sustained concentration over long periods of time

• There are some general rules you can follow that may make the task easier and improve the writing quality:
  ✓ Keep potential readership in mind
  ✓ Use sections and sub-sections to structure the work to provide breaks for the reader
  ✓ Include only what is necessary
  ✓ Follow appropriate academic and professional stylistic conventions
  ✓ Avoid long sentences
  ✓ Write as you go along
  ✓ Leave time for proof-reading and corrections
WRITING THE PROJECT REPORT

— POTENTIAL READERSHIP

• keep your potential readers in mind and repeatedly review what you have written

✓ Put yourself in their place
✓ Do not explain things which are common knowledge

Potential readers
✓ Supervisor(s)
✓ Internal examiners
✓ External examiner
✓ Industrial mentor(s)
✓ Future students and others interested in the subject
WRITING THE PROJECT REPORT

– SECTIONS AND SUBSECTIONS

• The main body of the project report should be divided up into sections/chapter

• Each section/chapter should, if necessary, be divided up into subsections

  ✓ Start each section and subsection with a summary of the rest of the material in it
  ✓ Each major section (or Chapter) should begin on a new page
  ✓ All sections and subsections should be numbered and headed
There are many stylistic conventions related to technical writing that you should follow. For example:

- Do not use shortened forms such as “don’t” for “do not”
- Avoid colloquialisms and slang words
- Divide your writing up into paragraphs
- Link paragraphs to make smooth transition
- Avoid long sentences
- Be careful with words whose common misspelling is a correct spelling of a different word (e.g. affect/effect, loose/lose)
FURTHER INFORMATION


