

DESIGN PROJECT REPORT (60% of the total grade)

Note: Use the **ECET design report template** for your project report.

Following sections are required for the project report. You can add more sections/chapters if required.

- (i) **Cover Page / Title Page** (Institution, division, and department names; Title of your project; Group members; Project supervisor; Semester)
- (ii) **Abstract**
- (iii) **Acknowledgements (if any)**
- (iv) **Table of Contents**
- (v) **List of Illustrations**
- (vi) **List of Tables**
- (vii) **Chapter # 1 - Introduction:** Provide a general background of the problem that you worked on. Establish the need and motivation for a solution to this problem. Briefly go over other different approaches that have been employed to solve similar type of problems or discuss similar projects. Show a block diagram of your design and go over different sections of the block diagram. Include engineering requirements of the project in a list or tabular format (check syllabus for an example of the engineering requirement table). Discuss the organization of rest of the report. This section should be comprehensive and should be divided into several sections or sub-sections.
- (viii) **Chapter # 2 - Background Research:** Discuss all the background research that you conducted and explanation of components/modules that relate to your project. This may include discussion of algorithms or topics that you used in parts of your project, different hardware components, brief introduction to programming languages that you used (and why?), and any other item and study that already existed and you used it for your project. If you are using equations and expressions, make sure to professionally write them with equation editor and properly explain them. Derivation of equations can be included in one of the appendices.
- (ix) **Chapter # 3 – Contribution or Project Description:** In different sections, explain your original contribution towards the design. This include, but not limited to, design integration and implementation, troubleshooting, multiple results carried out under different conditions, discussion of success and failure rates (quantitatively), graphs corresponding to results etc. Do not include programming codes as they go under Appendices. If it is necessary to show the implementation of an algorithm fundamental to your design through a piece of code, just show that piece or pieces of code and discuss them; don't put the whole program. To explain an algorithm that you implemented through programming, use a flow diagram. This chapter is extremely important to demonstrate your project and it should be comprehensive with quantitative results and their discussion.
- (x) **Chapter # 4 – Non-Technical Issues:** Discuss all non-technical issues as outlined in the template. If there is any other non-technical issue that you can think of, make sure to include it. Don't assume that this chapter is not important. The issues outlined in the template are very important for any engineering design, so make sure to think deeply and write properly about each issue.
- (xi) **Chapter # 5 – Conclusion:** Summarize your project and results and conclude your study with an emphasis of the utility of your project. Suggest future recommendations if you or any other group wants to take your idea to the next level.
- (xii) **References** (Please adhere to the IEEE citation style)
Note: Make sure to mention references in the main text by using reference number inside squared brackets [] that correspond to the corresponding reference under *References* section.
- (xiii) **Appendices** (programming codes, data-sheets, detailed derivations etc.)
- (xiv) **Group members biography**

EET 4950 – Senior Design Proposal – Design Report Rubric

Points	3 (A)	2 (B)	1 (C/D)
Title Page	All components required for the title page exist and are located correctly.	80% or more of the components necessary for a complete title page exist.	60% or more of the components necessary for a complete title page exist.
Table of Contents, List of Figures, and List of Tables (Weight: 10%)	Table of contents exists with correct page numbers and has all the required sections of the report listed. Lists of all figures and tables exist with accurate page numbers. Indentation is proper.	Table of contents exists but is missing page numbers or some of the sections that are required. Lists of all figures and tables exist but some of the page numbers are inaccurate. Indentation may require attention too.	Table of contents exists but page numbers and most of the sections are missing or inaccurate. Same goes for lists of tables and figures. Indentation may require attention too.
Abstract (Weight: 10%)	Approximately one page. It explains the proposed project in a concise yet comprehensive manner.	Purpose of the work is stated but explanation is incomplete.	Purpose and objective of the proposed work is unclear.
Main Body of the Report (Weight: 40%)	Report is divided into proper chapters. Project is introduced in detail with ample background information. Motivation of your work is clearly stated. There is detailed theoretical information regarding your project that includes discussion of any algorithms, equations, different methods etc. Similar existing projects are discussed. Requirements for the project are clearly stated and success criterion is established. Proper block diagram is present and different components of your design are discussed properly. Figures and tables have proper labeling. Engineering specification table clearly mentions requirements of the project and responsibilities of the group members. All results and observations are thoroughly discussed and presented in a manner that is understandable.	Organization of the report could be better, i.e. breakdown of different chapters could be more logical. Most of the things are present but either they are very brief or vague. Figures and tables are either missing labels or labels are vague that do not explain them properly. Results are either brief or not presented properly with tables and graphs.	Organization is poor. Report is not broken down into different chapters. Discussion and explanation of different things are vague and do not provide much insight about your project. Figures and tables are missing labels or labels are misleading. Results are vague and do not discuss success of your project clearly.
Summary and Conclusion (Weight: 10%)	Report has a proper summary that reinforces the idea of the project. Future improvements are presented clearly.	Summary does not reinforce the idea of the proposed project properly. Future improvements are some of the work that was supposed to be done by the group.	Summary does not properly match the proposed work.
CITATIONS/REFERENCES (Weight: 10%)	All information gathered by the group has been cited in the IEEE format.	Some of the sources that the group used has not been cited or formatting is not proper.	Very few sources have been cited. There are missing citation numbers and formatting is incorrect.
Appendices (if any)	All large pieces of information are in the corresponding appendices. Each appendix is labeled and holds information such as schematics, drawings, datasheets, codes etc.	Some of the information does not fit in the corresponding appendix.	Large pieces of information are just thrown in the back without proper organization. Appendices have missing titles.
Formatting & Editing (Weight: 20%)	Report is properly formatted according to the template and there is no problem with editing. Sentences have correct structure and nice flow.	Some editorial and grammar problems.	Major problems with formatting, editing, or/and structure of sentences.