

Mid-term SCDTR project report 2021/2022

1. Suggested Template

Use the IEEE conference template (A4 paper, double column, Times New Roman, 10pt)
<https://www.ieee.org/conferences/publishing/templates.html>

2. Suggested Structure

- Title of the Report
- Authorship (name, ist number)
- Introduction:
 - Explain the problem we are trying to address in general.
 - Explain the objectives of the first part of the project.
 - Explain the challenges related to the objectives (why is it not trivial).
 - Summarize the approach to achieve the objectives.
- Methodologies:
 - Describe, with a system / block diagram, the architecture of the solution and briefly explain it.
 - Describe, for each component of the system, the methodologies (theories, concepts, algorithms, tools, frameworks) to be used.
 - Describe how each component of the system interconnects with the remaining ones.
- Experimental Setup:
 - Describe the implementation of the **different system components**: the **luminaire**, the **luxmeter** function, the **office model**, the **identification and calibration of the system**, the **feedforward controller**, the **feedback controller**, the **simulator**, the **fusion between the feedforward and feedback controllers**, the **interface with the PC**.
 - You may copy excerpts of code (or refer to lines in the code files) to illustrate key parts of the implementation.
 - You should use figures to help your explanations.
- Results:
 - Describe which experiments were made to illustrate the performance of your solution and which metrics are used to quantify it (or if evaluation is only qualitative).
 - Show the results of the executed experiments with graphics, tables and/or pictures.
 - Explain the main observations of your experiments, both the positive and negative points.
 - **Check the guidelines** for the mid-term report in the project manual part 1.
- Conclusions:
 - Explain what the main messages are taken from the work done. Explain current limitations and how they can be tackled in future work.

3. General Guidelines

About Figures and Tables

1. Always put units and labels in the axes of figures and headers of tables.
2. In figures with multiple plots, make sure to insert a legend identifying the different plots.
3. All figures and tables should be referred to in the main text. Do not leave them orphans.
4. All figures and text must have a succinct self contained description (caption) such that a reader can understand it without reading the main text. Describe all symbols in the figure that are not obvious.
5. The caption should be complete but only descriptive. Do not make judgements about results (good or bad) here; judgements should go to the main text.
6. If your figure has many subfigures, make sure to identify in which aspect they differ (different parameters? different conditions ?).
7. If figures contain material from other sources, please identify the source in the caption with a suitable reference.

About Equations

1. After each equation explain ALL symbols in the equation not previously defined.
2. Equations are part of the sentences. If the text after the equation is still explaining the equation, it should not appear indented. If the Equation finalizes a sentence, use a period at the end of the equation.
3. Equation numbers should always be inside curved brackets, as they appear in the right of the equation definition.
4. When referring to an equation, e.g. (3.2), do not need to write "Equation (3.2)". Writing "(3.2)" is enough because the numbers of equations are the only references inside curved brackets.

About Writing Style

1. Do not forget to use good grammar and spell checker before sending the document for review. Microsoft Word and Google Docs have good grammar and spell checkers.
2. Revise your work many times.
3. Read other technical material: scientific papers and magazines are good sources.
4. Use short sentences. Consider fractioning sentences bigger than 2-3 lines.
5. Make sure sentences are well formed: at least a subject followed by a verb, and then an object.
6. For the most part, eliminate adverbs and adjectives, which can interfere with the precise, clear, and straightforward writing needed to communicate technical and scientific processes.
7. Stay objective. Eliminate opinions and ("I think" or "I feel") from your writing so that the emphasis remains on the technical and scientific processes and facts.
8. Omit needless words. Unnecessary words distract the reader. Don't write, "This is a system the performance of which is very useful". Instead, write "This is a useful system".

9. Write in a way that comes naturally. Speak the sentence. If it sounds correct, trust your ear and use the sentence. If it sounds unnatural, rewrite it.
10. Avoid fancy words; they don't impress anyone.
11. Be clear in your expression. If the idea you are trying to convey is getting lost in a sea of words and phrases, draw a line through the sentence and start again.
12. Beware of writing "it's" instead of "its" (and vice versa). To prevent this error, avoid using informal language abbreviations. Use "do not" instead of "don't" or "it is" instead of "it's".
13. Beware of writing "composed by" instead of "composed of". The 9th symphony is **composed by** Beethoven. The system is **composed of** different modules.
14. Avoid starting a section with a subsection. Put some text before the subsection.
15. Names of Sections, Figures, Tables, Chapters, etc should be written as with capitalized initials.