

Studies on Mechatronics Thesis

Superb Thesis Title

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Contents

List of Tables	i
List of Figures	ii
Abstract	1
1 Introduction	1
2 Main Category A	1
2.1 Sub-Category I	1
2.2 Sub-Category II	1
3 Main Category B	1
3.1 Sub-Category I	1
4 Discussion	1
5 Conclusion	1
References	2
A Extra Stuff	3
B Examples	4
B.1 Tables	4
B.2 Figures	4
B.3 Units	4
B.4 Miscellany	4

List of Tables

1	Translations	4
2	Spacing for units	4

List of Figures

1	IRIS logo	4
2	Subfigure example	4

Abstract

very short and juicy summary of topic and main points

1 Introduction

Explain scope and structure of report. What this review is about: short summary, motivation

2 Main Category A

What this is going to be about (introduction to this category in particular)

2.1 Sub-Category I

2.1.1 Sub-Sub-Category (if necessary)

2.2 Sub-Category II

In each of your categories (or subcategories if your topic is broad), we would like the following three points to be developed:

1. Concepts, definitions, value of this topic etc.
For explanations that do not really fit in the text you may want to use footnotes¹ or by using the appendix (e.g. "see appendix A").
2. State of the art, discussing the work in the field, etc. E.g. Shaninpoor et al. [1] have shown that ...
3. Outlook: where do you feel this field is going. How would you continue your research on this topic?

3 Main Category B

3.1 Sub-Category I

etc. etc.

4 Discussion

What this review was about: short summary. Main points highlighted. Perhaps a graph re-grouping together elements. Comparison of different strategies and their state. Maybe your own thoughts on the whole story and where the promising directions lie and which ones you see with scepticism.

5 Conclusion

Main conclusions and final remarks.

¹footnotes are shown below like this.

References

- [1] M. Shahinpoor, Y. Bar-Cohen, J. Simpson, and J. Smith. "Ionic polymer-metal composites (IPMCs) as biomimetic sensors, actuators and artificial muscles - a review". *Smart Mater. Struct.*, 7:R15–R30, 1998.

A Extra Stuff

Additional material such as long mathematical derivations.

B Examples

This appendix provides some additional hints and examples for the layout and style of the thesis. It is worthwhile to look at the source file `Examples.tex` for this appendix to understand how it was created.

B.1 Tables

Tables are left justified and the caption appears on top as seen in Table 1.

Table 1: Translations.

English	German
cell phone	Handy
Diet Coke	Coca Cola light

B.2 Figures

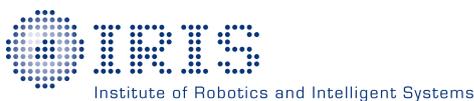
Figure 1 shows a simple figure with a single picture and Figure 2 shows a more complex figure containing subfigures.



Figure 1: IRIS logo.



(a) ETH logo



(b) IRIS logo

Figure 2: Two pictures as part of a single figure through the magic of the subfigure package.

B.3 Units

The SIUnits package provides nice spacing for units as demonstrated in Table 2. Use of the package also makes it easy to change the style or even the unit text in the future.

Table 2: Spacing for units.

Output	Command
42m	<code>42m</code>
42 m	<code>\unit{42}{\metre}</code>
42 m	<code>42 m</code>

B.4 Miscellany

Capitalization. When referring to a named table (such as in the previous section), the word *table* is capitalized. The same is true for figures, chapters and sections.

Naming of structural elements. Refer to a `\section` in L^AT_EX as a chapter and call a `\subsection` section. (I don't like the way `\chapters` are rendered in the report document class. Hence the suboptimal markup/naming correspondence.)

Bibliography. Use `bibtex` to make your life easier and to produce consistently formatted entries.

Contractions. Avoid contractions. For instance, use “do not” rather than “don't.”

Captions. A brief version of a caption can be provided for the list of figures and tables as demonstrated with the caption of Figure 2. The mechanism can also be used to get rid of the final period of a caption in the lists.