

General on the format of the reports for Project 2a & 2b

Document your findings in a written report that clearly shows your assumptions, model features and results. Try to keep it short and concise without leaving out any essential information. Make sure that a qualified reader (i.e. with basic engineering knowledge) can understand. Don't spend too much text on basic theory. It is assumed to be known. Focus on your results and how you obtained them. The report should have

- Cover page with the names of the group members,
- Table of contents - (for longer reports)
- Introduction - problem description
- Model, method and analysis
- Results and discussion
- Appendices with code, measured data, etc

The choice of fonts is a matter of taste but choose a font that is easy to read e.g. 11 or 12 pt Times Roman or similar.

Concerning how to structure the text; for a short text it is good to use two levels, being *sections* and *subsections*. It is shown here by using the Pythagorean Theorem as an example.

Ex. Sections and subsections:

2. The Pythagorean Theorem

It has long been of interest to determine the length of the sides in a triangle ...

2.1 A triangle with a right angle

A right triangle has a simple relationship between its side lengths ...

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Moreover, it is nice to be systematic when referring to *equations*, *figures*, and *literature*. See the examples below:

Ex. Equations:

Side lengths are connected as

$$c^2 = a^2 + b^2 \quad \dots (3)$$

with *a*, *b*, and *c* being the

According to Eq. (3) it is found that ...

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The variables used are usually written in *italics* matrices in bold making it easy to separate a variable and matrix from the text. Equations you refer to should be numbered. However, intermediate equations not being referred to in the text, need not be numbered.

Ex. Figures:

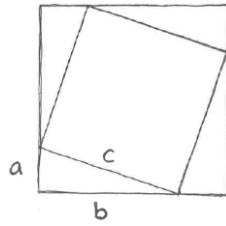


Fig.6 Use of two squares for the proof of the theorem.

The areas defined by the squares and triangles in Figure 6 can be used to prove the validity of Eq. (3).

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The figure text is often written in italics and sometimes with a smaller font too. It looks nice if the fonts in the figure are of about the same size as the fonts in the figure text.

Ex. Literature:

According to Section 2.1 the relationship originally proposed by Pythagoras [2] was shown to be ...

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In the reference list the style varies, but it contains information about the author, the text source (i.e. book or journal), and the year it was published. It can be written as

Ex. Literature cont.:

References

[1]

[2] Pythagoras, *A relationship for triangles*, <source>, <date>

[3]

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A standard way to start and end a technical report is by starting with a section *Introduction* and ending with a section *Conclusions*. It is also common to have a summary of the work including main results. The headline *Discussion* can be used within several sections if suitable.