## Writing rules

Find in this document some writing rules which you have to apply in your research assignments, thesis, dissertations, and articles. **Make sure that you apply these writing rules.** Failure to do so may result in me stopping to read your document.

Before I provide a list of the writing rules, note that when you submit documents to me, **submit as pdf**, and **make sure that all hyperlinks are deactivated**. If hyperlinks are not deactivated, I am going to return the document to you. Before you submit something for me to read, **get someone to read your document for language & grammar before sending it to me**. Note that if the linguistic quality of your document is not good, I will return the document to you without reading it.

I will create a DropBox folder for you for the purposes of your studies under my supervision. I will upload any material that you should read to your dropbox folder. You will also upload your reports, articles, chapters, thesis, dissertation, or research assignment to your dropbox folder **using the following file name convention**: *nameSurnameFilenameVx.pdf*, where *Filename* identifies the document and *x* refers to the version number. When you have uploaded a document, send me an email to inform me. I will provide my feedback as annotations to this pdf document, and upload a file named *nameSurnameFilenameVxFeedback.pdf*. Once I have uploaded feedback, I will send you an email.

My annotated feedback will likely contain references to the writing rules below. I will use the notation *WRx*, meaning writing rule number *x*. You will then have to consult this document for the correction to be made. If there are many occurrences of the same error, note that I am not going to mark all occurrences and expect you to ensure that all such occurrences are attended to.

Note: You have to regularly download this document, because it will be continuously revised.

The writing rules are provided below in no particular order:

1. You are strongly advised to make use of LaTeX to typeset your document. This is not a requirement. However, from experience, a document typesetted using LaTeX looks much more professional, specifically when the document contains math, figures, and tables.
2. Use a spell and grammar checker.
3. Write in the third person.
4. On the use of tenses:
   a) By default, write in present tense.
   b) The empirical process followed and discussion of observations are done in past tense.
   c) Conclusions are written in past tense
   d) Do not use present continuous tense, e.g. “Optimising of the control parameters...”; rather, “Optimisation of the control parameters...”.
5. Avoid the use of pronouns, such as “it, its, this, them, they, which”. These pronouns introduce ambiguities. Rather be very specific in what you refer to.
6. Do not use uncertain terms such as “some”, “certain”. These terms indicate that you are not sure yourself. Be very specific.
7. Avoid “may be”, “can be”. These terms give the impression that you are not sure.
8. Do not use “etc”. Be complete and specific.
9. Avoid footnotes and clarifications in parentheses. These break reading flow.
10. When you do provide text in parentheses, the reader must know why that text is given. As an example, do not just give a figure number or table number in parentheses, such as “The algorithm has the highest rank (Table 2).” Rather, “The algorithm has the highest rank (refer to Table 2).” Even better is to not use parentheses here, and write as “The algorithm has the highest rank as indicated in Table 2.

11. Make sure that each concept is defined before it is used.
12. Note the meaning of “it’s” as “it is”. Note the difference between the pronoun “its” and “it is”.
13. Do not use contractions such as first “don’t”, “we’re”.
14. Avoid using apostrophes to indicate position, such as “the algorithm’s performance...” . Here, rather write as “the performance of the algorithm...”
15. Note the difference between “to” and “too”.
16. Also, note the difference between “amount” and “number of”. The latter refers to countable objects, the former to non-countable objects.
17. Be careful in the use of conjunctions such as “since”, “because”, “as”. Refer to https://www.vedantu.com/english/use-of-conjunctions
18. Convention is that single-digit numbers are given in words, and multi-digit numbers in numeric form.
19. About sentences:
    a) Write in short, flowing sentences. Long sentences become difficult to follow. A sentence becomes too long if there are more than one comma or conjunctive in the sentence. One sentence should convey one fact.
    b) Write in full sentences.
    c) Do not start a sentence with a symbol, or a number.
    d) Each sentence should flow from the previous sentence.
    e) Do not start a sentence with a citation label.
    f) Avoid starting sentences with “In this section, optimisation is discussed”. Rather, “This section discusses optimisation”, or “Optimisation is discussed in this section.”
    g) Do not start a sentence with “And” or “But”.
    h) Incomplete sentence: Write in complete sentences – each sentence must have a verb.
20. About paragraphs:
    a) Each paragraph should flow from the previous paragraph.
    b) Do not write in long paragraphs. A paragraph is like a function in programming: The function should have one goal, one focus. However, avoid too short paragraphs. Both make reading difficult.
21. With reference to equations, the following:
    a) Equations should flow as part of a sentence. It must flow as part of the narrative.
    b) All symbols used in an equation have to be defined. However, if a symbol has already been defined, do not define it again.
    c) Do not make forward references to equations.
22. With reference to acronyms, please note the following:
    a) Each acronym has to be defined.
    b) List acronyms and their definitions in an appendix in alphabetical order.
    c) Do not use acronyms in any heading or caption.
    d) Once an acronym has been defined, use the acronym. I advise that you use the LaTeX glossaries package.
    e) In the conclusions, define each acronym again when first used.
23. While I do not prescribe a specific bibliography and citation format, please note the following:
    a) References to be sorted alphabetically based on the surname of the first author.
    b) Each reference in the bibliography should be referred to in the text.
    c) Do not use names of authors, because names are not always available. Use only initials and surnames.
    d) Do not refer to any pre-prints, e.g. documents available at arXiv, ResearchSquare, or any other medium. Find where it was published. If not published in a book, proceedings, or journal, then you cannot include it in your bibliography.
    e) Do not refer to blogs.

f) References to websites for code libraries and data archives are best done as a footnote and not as part of the bibliography.
g) Make sure that references are complete.
h) Make sure that formatting of references are consistent.
i) For an article published in the proceedings of a conference, give the source (i.e. booktitle) as “Proceedings of the XXX”, where XXX is the name of the conference.
j) Do not give the ac16ronym of the conference or journal article.
k) Write conference names out in full.acronym
l) Write journal nam45es out in full.

24. Citations to references in the bibliography:
    a) “Engelbrecht showed that...” (for one author)
    b) “Erwin and Engelbrecht showed that...” (for two authors)
    c) “Harrison *et al.* showed that...” (for more that two authors)
    d) Note the use of past tense above.
    e) When using numerical citations to references, make sure that citations are sorted.
25. With reference to figures:
    a) Figure captions are given below the figure.
    b) Font and size of text use in a figure should be the same as for the main text.
    c) Figure captions serve only as a label, and should not contain detailed explanations.
    d) Symbols used in a figure may be defined in the caption.
    e) Each figure should be referred to in the main text, introduced, and discussed.
    f) If you have multiple sub-figures in one figure environment, do not add a heading for each figure. Use the LaTeX subfigure environment and for each sub-figure, provide a sub-caption.
    g) Place a figure after the first reference to the figure.
    h) Avoid copying and pasting images and illustrations from literature. Provide your own diagrams, reproduction of these images.
    i) If you do use figures from other source, then you have to cite these sources.
26. With reference to tables, the following:
    a) Table captions are given above the table
    b) Table captions serve only as a label, and should not contain detailed explanations.
    c) Symbols used in a table may be defined in the caption.
    d) Place a table after the first reference to the table.
27. With reference to algorithms, the following:figure
    a) Use the LaTeX algorithms package.
    b) Algorithm captions at the top of the algorithm.
    c) Algorithm captions serve only as a label, and should not contain detailed explanations.
    d) Symbols used in an algorithm may be defined in the caption.
    e) Place an algorithm after the first reference to the algorithm
    f) Do not use any programming-based statements, but rather give pseudocode statements in English text.
28. About chapters/sections, the following:
    a) Chapter/section headings serve only as a label, and should not contain a verb, and not be a question.
    b) Do not have chapters and main sections with detailed text followed by subsections. Each chapter and main section to start with the purpose of the main section, some context, and an outline of the remainder of the section. The main text is then organized in appropriate, flowing subsections.
    c) A chapter/main section should not have only one subsection.
    d) Do not use forward references to sections/chapters. The only place where forward references to sections/chapters are allowed is in the outline of the section/chapter.
    e) Do not start a chapter with a figure, table or algorithm. Start with text.

f) End each chapter with a chapter summary.
g) Start each chapter with a short paragraph stating the context and purpose of the chapter, followed by an outline of the chapter.

29. With reference to symbols:
    a) Make sure that all mathematical symbols are given in math mode.
    b) Do not overload the meaning of symbols. Each symbol must have one unique meaning, and each meaning must have only one symbol associated with it.
    c) Provide all symbols are their definitions in an appendix in alphabetical order.
    d) Give vectors in bold, lower case. While the arrow notation is correct, it may become cluttered.
    e) Give matrices in bold, upper case.
    f) Sets and sequences are in upper case, not bold.
    g) Functions are in lower case, not bold.
    h) Scalars are in lower case, not bold.
    i) Superscripts and subscripts of vectors and matrices are not in bold.
    j) Avoid multi-character symbols for math and indices.
    k) Note that f(x) is the value of the function, f, at point x; f(x) is not the function, the function is f.
    l) Only defined symbols not yet defined
30. Provide all Latin words, such as “et al”, in italics.
31. You may use either American or British English, though use consistently.
32. Singular versus plural forms:
    a) criterion is singular; criteria is plural.
    b) optima, minima, maxima are plural; optimum, minimum, maximum are singular
33. In normal text, do not capitalize the first character of each word when you define acronyms. Capitalization is used only when a word refers to a name.
34. Do not make any statements/claims without providing supporting evidence, which can be in the form of a citation to one of your references or empirical evidence that you provide in your document.